MEDICAL JOURNAL OF AUSTRALIA.

Vol. I. SYDNEY : JULY 25, 1914. No. 4.

THE RESULTS OF CONSERVATIVE TREATMENT AND OF NEPHRECTOMY IN RENAL TUBERCULOSIS.

By **F. Gehrels, M.D. (Heidelberg),**
Sydney.

For many years researches and investigations have been conducted with great thoroughness with a view of determining the best method of treating unilateral renal tuberculosis, and it is now a generally accepted principle that this condition should be dealt with by nephrectomy. The only outstanding question at the present time is whether cases of early tubercular disease of the kidney should be treated conservatively, or whether nephrectomy should be immediately performed. In these cases the disease is manifested by a slight deposit of leucocytes, and by a slight, at times almost imperceptible impairment of the function of the kidney. Notwithstanding this concensus of opinion, many physicians, even in Sydney, treat urinary tuberculosis with tuberculin and other internal remedies for months and years, often without making an exact diagnosis of the local condition. I have had experience of cases of pyonephrosis which were treated with tuberculin for months on account of a suspected tuberculosis, the urinary deposit not having been stained for the presence of tubercle bacilli nor injected into guinea-pigs. Vaccines and tuberculin appear to have become an obsession with some people. For these reasons it appears to me that it would be useful to discuss in some detail the reasons which have led to the almost unanimous adoption of treating unilateral tuberculosis by nephrectomy. The literature on the subject is for the most part to be found in French and German journals, and may not be accessible to the majority of practitioners. It is very extensive, and for this reason reference will only be made for the more important contributions. It is to be hoped that, while the following discussion of the results of operative treatment, as compared with conservative treatment, may not contain any new facts, it may be found of use.

Is spontaneous cure of renal tuberculosis possible, and what are the results of conservative treatment? In order to prove the possibility of a spontaneous recovery from renal tuberculosis, it is necessary to adduce anatomical and clinical evidence. The anatomical proof to be sought would be obtained from kidneys removed either post-mortem or at operations, in which cicatrized old areas of tuberculosis are found, surrounded by renal tissue, presenting a normal appearance. This holds good for other organs. Up to the present, however, no such specimens have been discovered. I regard this fact as being extremely important. Numerous cases have been reported in which an old tuberculor focus containing caseous material, was encapsuled, and was probably inert, in one part of the kidney: but in the neighbourhood of these foci active tubercles were always present. Such a caseous area might be cut off from the pelvis for a time, and the urine would in consequence become normal. It is very important to recognise this possibility since it explains what might otherwise be regarded as a temporary apparent cure, followed by severe recurrence. Heitz-Boyer has published the records of some very interesting cases of this kind in the "Journal d'Urologie," November, 1912, and March 1914. A number of observations have further been made on the condition spoken of as "auto-nephrectomy." In these cases the tuberculous kidney ceased to secrete urine after it had been completely destroyed, or wholly separated from the lower portion of the urinary track by a complete cicatricial obstruction of the ureter. The urine in the bladder, coming from the healthy kidney exclusively, was found to be normal. It is, therefore, erroneous to speak of cure in these cases. If the patients were quite healthy after the destruction of the kidney or its seclusion, it might be admissible to speak of recovery. Clinical observations, however, teach that these patients are always under the influence of toxins derived from the diseased kidney. This becomes still more evident after the kidney is removed, in spite of the urine having been free from tubercle bacilli. The patients increase in weight and gain in strength after the operation, to such an extent that the damaging effects of the presence of the destroyed kidney can be clearly recognised Apart from these considerations, it must be recognised that the patients were exposed to enormous risks as long as the disintegrated kidney was retained.

It may be asked whether a very early renal tuberculosis, in which only a few tubercles are present in one of the papillæ, could not undergo spontaneous cure. It is almost impossible to produce evidence of this kind, but it must be recognised that reeovery in these cases is theoretically possible.

The foregoing remarks apply equally to cases which have never been treated at all, and to cases which have been treated by tuberculin or some other specific remedy. There is no case on record in which the anatomical proof of a cure of renal tuberculosis effected by tuberculin has been forthcoming. On the other hand, the histological condition of kidneys of persons who have suffered from renal tuberculosis, and who have been treated by tuberculin, has on numerous occasions demonstrated the absolute inefficiency of this treatment. Zuckerkandl, Kuemmel, Wildbolz, and others have examined kidneys after operation, and have failed to find the least trace of a healing process resulting from tuberculin treatment. Wildbolz recorded at the last International Congress of Medicine in London (1913) eight cases of unilateral renal tuberculosis, which were treated for three months with tuberculin during the very earliest stages, without improvement, before the operation was carried out. The kidneys were examined microscopically with very great

care, but no trace of a curative process could be detected.

Exact clinical observation would possibly produce evidence of the cure of renal tuberculosis by conservative methods of treatment. A large number of cases have been reported in which cure was stated to have taken place as a result of treatment without operation, usually with tuberculin. The number however, of cases which might be regarded as instances of cure by these means is very small. The majority of observations are too incomplete and too unconvincing to justify any conclusions being drawn from them. It is necessary that the following conditions should be fulfilled, if clinical observation is to be of any value.

In the first place, conclusive evidence must be given that the case was one of surgical tuberculosis of the kidney, that is to say, of infiltrating, ulcerating tubercular inflammation with the formation of cavities. The presence of tubercle bacilli must be demonstrated in all cases by staining and by inoculation into guinea-pigs. In addition, it must be shown that the urine contains a certain number of leucocytes. This is necessary, owing to the fact that persons harbouring a tubercular focus somewhere in their bodies may have a tubercular bacilluria in normal or albuminous urine, without any lesion of the kidney. This was demonstrated by Kielleuthner and others who have made a special study of this condition. It must also be remembered that cases of parenchymatous and interstitial nephritis may be caused by tubercle bacilli or their toxins, and in these cases the bacilli are found in the urine. No surgeon, however, would treat these cases by operation. In order to diagnose renal tuberculosis in the absence of distinct clinical symptoms, the urine should be collected by means of the ureteral catheter from each kidney separately, and examined. It is not sufficient to examine the mixed urine collected in the bladder for the purpose of forming a diagnosis of renal tuberculosis, since the case might be one of primary vesical tuberculosis, which is extremely rare, or of tuberculosis secondary to a masked genital tuberculosis.

In my opinion the following evidence should be furnished before a cure is accepted: (1) Inoculation of guinea-pigs, with urine from the bladder, or better still from each kidney, must yield a negative result. (2) The urine, when excreted, must be free from pus. Leucocytes or bacilli in the vesical urine do not necessarily exclude the cure of renal tuberculosis, but may indicate the persistence of a cystitis. (3) The function of the kidney should be shown to be normal by means of the usual tests carried out with the aid of ureteral catheterization. This is very important, since the urine in the bladder might be temporarily free from pus and tubercle bacilli as a result of the temporary cutting off of the lesion from the pelvis If it is shown that the kidney is not functionating satisfactorily, it would be reasonable to assume such an occurrence, as was the case in Heitz-Boyer's patient. (4) The patient should remain well for at least two years. As is well known, temporary improvement or even apparent cure, is by no means uncommon.

The disappearance of subjective symptoms, such as pollakuria, dysuria, pain in the loins, etc., is useless and misleading in forming a judgment. These symptoms not infrequently become greatly diminished, or disappear altogether, while the disease is progressing.

In submitting the records of cases in which cure is said to have taken place to criticism, I find that in quite a number, the diagnosis of renal tuberculosis was not proved. In some instances tubercle bacilli were not found, and in others they were not even looked for. Several observers content themselves by stating that all the subjective symptoms had disappeared. No mention is made as to whether pus was present or not in the urine in a number of these records. There are, however, records of a few cases of reputed recovery, in which a thorough local examination by cystoscopy and ureteral catheterization was carried out. These cases were, for the most part, under observation for too short a period of time to justify conclusions being drawn. It is impossible in this place to enter into a discussion of all the single observations. These questions have been exhaustively dealt with by Wildbolz in his excellent "rapport" read before the II. German Congress of Urology in Vienna (1911); by Leguen and Chavassu at the International Congress of Tuberculosis in Rome (1912); by Heitz-Boyer and Bernard at the French Congress of Urology in Paris (1912); and by Wildbolz and Rochet at the International Congress of Medicine in London (1913). All these authors found that among the hundreds of cases reported, of apparent cure, only one, viz, that of Karo (Mediz. Klinik, 1911) could be regarded as definitely proved. In eight or ten cases apparent cure had taken place but the cases were not under observation for long enough to be accepted, as actual cures, or some important facts were omitted from the reports. In addition to Karo's case, which was treated by tuberculin, a second case has been published by Wildbolz, in which cure was obtained without any specific treatment, the kidney regaining its full function It is generally recognised that tuberculin exercises a certain amount of anti-toxic action on the organism, leading to an improvement in the general health of the subject, and to a diminuation of the bladder symptoms.

Until quite recently, few urologists published papers dealing with all the cases recorded. Blum reported the results of conservative treatment at von Frisch's clinic in Vienna in 1908. Twenty six patients were treated in the course of eight years Of these 24 had died of their kidney disease. The two surviving patients showed marked symptoms of advanced disease. In all these cases, operative treatment had been declined, and in as much as they were all advanced cases, the results cannot be regarded as evident against the possibility of recovery by conservative means.

Ekehorn published a paper on this subject in the Nordisches mediz. Archiv, Abt. I., Heft 1 u. 2

(1909). I have unfortunately only had access to an abstract of this paper. Of 23 patients suffering from renal tuberculosis and treated by operation. 15 had died and 8 were still alive in 1909. In 4 of these cases all the subjective symptoms had disappeared. The author had only been able to make an examination of the urine in two of the cases. In both instances the urine was clear; in one it contained a trace of albumin, and in the other a considerable quantity. In the remaining 4 cases the renal tuberculosis was still evident. The cause of death of all the patients, save one, had been the renal tuberculosis. The disease had lasted from 5 to 10 years, in the 8 patients still living. These two articles represent all the collective reports on this subject published up to 1911.

Wildbolz was fully aware of the fact that the data had not been collected when he was preparing his address with Israel on the final results of the treatment of renal tuberculosis for the Urogical Congress in Vienna in 1911. He had been a believer in tuberculin treatment. He collected all his material from general practitioners and not from surgeons. Fifteen hundred Swiss practitioners were circularised in regard to the effect of conservative treatment in their cases of renal tuberculosis. Wildbolz was able to utilise the reports of 316 cases of renal tuberculosis confirmed by bacteriological examination. The remainder of the cases were reported in such a way as to be valueless for the purpose. Although the reports of many of the cases utilised were defective in regard to the results of special examination, the series represents a valuable and impartial material. Operable and inoperable, severe and mild, cases are included without selection, and a fairly accurate picture of the cause of the disease was obtainable from the records. Wildbolz only dealt with cases in which the urinary tuberculosis was the main feature of the disease, and which were observed for at least two years. No less than 218 out of the 316 patients had died of their renal affection. This represents a mortality of 70 per cent. Ninety-nine patients, i.e, 33.3 per cent. died within two years of the onset of the disease, and 86, i.e., 27.2 per cent. died in the third to the fifth year. In 8 patients, i.e., 2.5 per cent., the lethal issue was delayed beyond this period. A few of the patients died of intercurrent diseases (marasmus, uræmia, phthisis, military tuberculosis, etc.). Only 98 patients, i.e., 30 per cent of the total number, were alive at the time when Wildbolz read his paper. The duration of life after the onset of the disease was as follows:—

1-2 years	.....	21 patients
3-5 „	.....	38 „
6-10 „	.....	18 „
Over 10 „	.....	12 „

Sixty-eight of the surviving patients complained of continuous severe symptoms. According to the reports of the practitioners treating the patients, no severe subjective symptoms were present in 30. Accurate objective examination was not recorded, and it is, therefore, inadmissable to speak of these cases as being definitely cured. They have, therefore, to be tabulated under apparent cures. In 13 of the fatal cases periods varying from 8 months to 7 years of apparent recovery had been observed. In many of these cases after the freedom from symptoms for several years, the disease again became active, and death from uræmia took place.

Wildbolz has added the results of his personal experience. He was able to obtain reliable information in regard to 68 patients whom he had examined with care, and who had been treated by conservative methods. Of these, 34 had died, 32 of the direct consequences of the genito-urinary tuberculosis, 11 in the first 2 years, 17 in the third to fifth year, and 6 in the fifth to ninth year of the disease. Nineteen of the surviving patients were suffering from unilateral renal tuberculosis. Marked symptoms were present in 13 patients. Five of them only complained of slight subjective symptoms, but their urine was found to contain pus and tubercle bacilli. In one case only was the function of the previously tuberculous kidney fully restored, and the patient apparently cured without operation. This patient had been placed under treatment in the very earliest stages of his disease. In 1911 the urine had been normal for three years, and in 1913 Wildbolz reported at the International Congress in London that it had remained so.

The same author gives Hottinger's results. Sixty-three patients were treated by conservative methods. Of these, 48, i.e., 76 per cent., had died of the direct effect of their renal tuberculosis In a few cases the disease ran a very slow course; the longest duration being 20 years. Severe bladder symptoms were present in all the surviving patients, save one. In this case recovery had apparently taken place as a result of spontaneous total exclusion of the tuberculous kidney.

Rafin has published an analysis of 168 cases of renal tuberculosis treated by French general practitioners without operation ("Journ. d'Urologie," Vol. 11, No. 6, 1912). 89, i.e., 53 per cent., of these patients had died at the time when he compiled his statistics. Death took place during—

	Per cent.
the 1-2 year in	17.2
„ 3-5 year in	17.8
„ 6-10 year in	16.0
„ 11-16 year in	2.4

The greater number died of tuberculosis. These are the principal papers on conservative treatment of renal tuberculosis which have been published It will be seen that the results obtained by conservative methods are not encouraging. For this reason I am inclined to agree with the opinion expressed by Wildbolz in summarising the facts elicited. He states that renal tuberculosis, treated by conservative methods, leads to a fatal issue within 5 years in the majority of cases. Only about 20 per cent. resist the disease for 5-10 years, and but few for a longer period. Bilateral tuberculous disease of the kidney runs a particularly rapid and severe course. Subjective symptoms persist until death,

but in the majority of cases, some temporary improvement is noted at intervals. In a small number of patients the symptoms disappear almost entirely, and only slight traces of the disease are left. Without exact examination of the urinary organs it might be supposed that the disease had been cured. The unfavourable course at a later period, however, proved its persistence. This apparent recovery lasted for more than 5 years in only 6.7 per cent. of all the patients. Undoubted permanent cure of the disease, with complete restoration of the function of the affected kidney has been observed in so few cases out of a total of several thousands, that the following sentence must be regarded as well founded: Renal tuberculosis cannot be cured by the conservative methods at present employed in the vast majority of cases.

I now turn to the results of nephrectomy in renal tuberculosis. A great number of surgeons have published reports on the results of operative treatment of renal tuberculosis, but the majority have unfortunately only dealt with the direct mortality of the operation. Israel collected information in regard to the ultimate fate of patients operated on by various surgeons, for his report read before the Congress at Vienna in 1911. This was published in "Folia urolog," 1911. He obtained exact data of 1023 cases, of which 170 were patients of his own. He makes a distinction between early death (Nahtod) and late death (Ferntod). By "early death" he means death occurring during the operation, or up to 6 months after this. By "late death" he means death occurring after 6 months. The early death-rate was 12.9 per cent., and the late death-rate was 10.15 per cent. The total mortality of all cases was found to be 25 per cent. In some cases death occurred as late as 20 years after operation. Seventy-five per cent. of the patients operated on were, therefore, saved by the operation. If we compare the corresponding numbers given by Wildbolz we find that conservative treatment yields a total mortality of 67-70 per cent., as compared with 25 per cent. after operation. The most important causes of death after nephrectomy within the first 6 months were cardiac insufficiency and acute miliary tuberculosis. In those patients who died after the expiration of 6 months, death was due in the main to tuberculosis of the lungs and disease of the second kidney. Death caused by disease of the second kidney occurred in 33.6 per cent. of all the late deaths. In one-third of these cases the kidney disease was non tubercular, and in two-thirds tubercular. In nearly one-half of the cases of tuberculosis of the second kidney a fatal termination took place within 2 years of the operation. The tubercular disease of the second kidney, developing after the operation, existed in the majority of cases before the operation. In 11.1 per cent. it was a new affection, developing after the operation had been performed. This corresponds to 1.6 per cent. of the total number of cases. Israel found that in 63.8 per cent. of the patients subjected to operation, the tubercle bacilli disappeared from the urine. This was proved by a negative result of the inoculation of the urine into guinea-pigs. If the disappearance of the bacilli be accepted as evidence of the cure of the tuberculosis, it would appear that 63.8 per cent. of the patients were cured. The frequency of the persistence of the bacilli depends, to a great extent, on the extension of the bladder affection which existed before the operation. Israel shows that in certain cases, persistence of tubercle bacilli can be regarded as practically of small significance. In 75 per cent. of all "bacilli carriers," no trouble of micturation was noted. Bacilli were found in the urine of patients who were in good health, and whose second kidney and bladder were discharging their functions in a normal manner. In 94.7 per cent. of these patients the weight had increased. In view of the absence of symptoms, some of these patients are comparable to "typhoid carriers."

In more than two-thirds of the cases operated on, the urine did not become quite normal. In 53.4 per cent. albumin was found, mostly in traces. Red blood corpuscles and their debris were found in 48.8 per cent., leucocytes in 46.5 per cent., casts chiefly of the hyaline variety in 23.2 per cent. Pain and increased frequency of micturation were diminished or entirely removed in 80.90 per cent. of all cases. 93.9 per cent. of the patients gained in weight. A few authors have dealt with the same subject. Suter reports on 60 cases treated by operadiminshed or entirely removed in 80-90 per cent. and late death in 6.6 per cent. In 56 per cent. of the cases complete recovery ensued, and in 34 per cent. there was distinct improvement.

Asakura states that of 70 patients 9 died, 25 were improved, and complete recovery was observed in 36.

Wildbolz operated on 125 patients; 23 died, 76, i.e., 60.8 per cent., recovered completely, and 36, i.e., 20.8 per cent. were improved. Kuemmel reports on a series of 106 cases, with a total death-roll of 22. Boeckel lost 11 patients out of a total of 57. Braasch, working in Mayo's clinic, reports on 203 patients operated on. He was able to trace the after-history of 142 of these cases. The mortality was 15 per cent. Of the 167 patients surviving the operation, 87 per cent. were greatly improved, or completely cured. He concludes that in 75 per cent. of the nephrectomies, a permanent recovery can be counted on, whereas under conservative treatment about 90 per cent. eventually die of the infection.

In regard to the immediate mortality of nephrectomy, various authors have given varying percentages during the last ten years. Braasch lost 2.9 per cent. (dealing with 205 cases). Kuemmel lost 4 per cent. (106 cases), Bockel 4 per cent. (57 cases), Wildbolz 2.8 per cent. (139 cases), and Rosving lost 3.8 per cent. (131 cases).

There can be no doubt that the statistics, so carefully compiled by Wildbolz and Israel, confirmed, on the one hand, by the experience of Blum, Ekehorn, Hottinger and Rafin, and, on the other, by the publications of Suter, Asakura, Bockel, Wildbolz, Kuemmel and Braasch, are quite conclusive.

Conservative treatment procures temporary improvement in a proportion of the cases, and actual recovery in but very few; it yields a mortality of from 60 to 75 per cent. within five years. Operative treatment, on the other hand, cures, as can be proved by the disappearance of the tubercle bacilli in 63 per cent. of the cases, by the permanent recovery from all subjective symptoms in 80-90 per cent., and by a total mortality of 25 per cent., during an unlimited period after the operation. These results are brilliant, when compared with those of conservative treatment. The figures and statements should convert all those who still cling with tenacity to the conservative treatment of surgical renal tuberculosis. The results obtained in Europe hold good in Australia. The principle should be adopted, firstly to make an exact local examination in every case in which tuberculosis of the kidney is suspected, and, secondly, to follow the example of continental authors in operating. Nephrectomy is the only reliable resource in urinary tuberculosis. The practitioner should bear the following points in mind:—Renal tuberculosis is by no means rare. It is rarely diagnosed. It is often manifested by bladder symptoms alone. The possibility of tuberculosis of the kidney should be thought of in every case of chronic cystitis or pyuria which does not yield to the ordinary measures. Primary tuberculosis of the bladder is extremely rare, and in every case where tubercle bacilli are found in the urine, an exact local examination of the kidneys by cystoscopy and ureteral catheterization should be made without delay. It is to be hoped that, as a result of an early diagnosis, the total mortality after nephrectomy will be diminished. The disease will not, in the vast majority of cases, yield to treatment by tuberculin, and its employment will only result in a deplorable waste of time, energy and money. The only rational method of dealing with unilateral renal tuberculosis is nephrectomy.

REFERENCES.

Blum, Die medizinische und chirurgische Behandlung der Nierentuberkulose; deren Aussichten and Erfolge. Zeitschr f. Urologie, vol. III., 1909.

Wildbolz, Tuberkulinbehandlung der Nierentuberkulose. Berl. Klin. Woch., 1910, No. 26.

Wildbolz, Ein neuer Beitrag zur Tuberkulinbehandlung der Nierentuberkulose. Wiener Med. Woch. 1911, No. 37.

Karo, Weitere Erfahrungen ueber die spezifische Therapie der Nierentuberkulose. Mediz. Klinik., 1911, No. 26.

J. Israel, Die Endresultate der Nephretomieen wegen Nierentuberkulose. Verhandl. d. deutsch. Gesell. f. Urol, 1911.

Wildbolz, Dauererfolge bei Nephrektomie wegen Tuberkulose. Verhandl. d. deutsch. Gesell f. Urol., 1911.

Asakura, Ueber die Nierentukerkulose. Verhand. d. deutsch. Gesell. f. Urol., 1911.

Boekel, Unmittelbare und spaetere Resultate von 57 Nephrektomieen wegen Nierentuberkulose. Verhandl. d. deutsch. Gesell. f. Urol., 1911.

Kuemmel.—The operative and specific treatment of renal and vesical tuberculosis. Surgery, Gynaecol. and Obstetrics, April, 1911.

Braasch Clinical Observations on 203 patients operated on for Renal Tuberculosis. Journ. Amer. Med. Assoc., Feb. 10, 1912.

Rovsing.—The diagnosis of tuberculosis of the kidneys in very early and very advanced cases. Journ. Americ. Med. Assoc., Dec. 21, 1911.

Rafin.—Durée de l'évolution de la tuberculose rênale non operée et causes de la mort. Journ. d'Urol., 1912. Vol. II.

Heitz-Boyer.—Pseudoguérisons de la tuberculose rénale par le traitement conservative. Journ. d'Urol., 1912, Vol. II.

Rochet.—Traitement de la tuberculose rénale er vésicale au premier stade. Intern. Congress of Med., London, 1913.

Wildbolz.—Die Diagnose und Behandlung der Nieren und Blasentuberkulose im Anfangsstadium. Intern. Congress of Med., London, 1913.

Heitz-Boyer.—Exclusion partielle dans un rein tuberculeux avec urines claires. Journ. d'Urol., 1914, No. 3.

———o———

THE ETIOLOGY OF ALOPECIA AREATA.

By **Norman Paul, M.B., Ch.Mfl. (Syd.),**
Sydney.

In spite of the many theories advanced, and the many divergent views that have from time to time been put forward in explanation of this complex question, it still remains one of the foremost of the unsolved problems of dermatology, and none of the well known hypotheses can as yet be deemed capable of satisfactorily explaining the clinical manifestations of this widespread disease. For the foregoing reason the writer is tempted to add still another theory, which strongly commends itself as the true explanation of its origin, and seems capable of accounting for all cases, in contradistinction to the present method of allocating various cases to the different hypotheses. It would appear that the true explanation of the origin of this complaint is to be found in some derangement of the internal secretions. For although our knowledge of glands with an internal secretion, and the ductless glands in particular, is somewhat indefinite, and we have to depend mainly for our conclusion on clinical experience, nevertheless during the past two or three decades, great progress has been made by various investigators in determining their exact physiology and pathology, as well as by a revival of the treatment of many diseases with animal extracts; and it is not over presumptuous to suppose that those observations will lead us to the correct explanation of the etiology, not only of this complaint, but also of many hitherto unexplained skin diseases. That lesions of the skin and its appendages are frequently associated with pathological changes in these organs is supported by the following established facts.

1. Amongst the clinical manifestations of myxœdœma are dryness and roughness of the skin and imperfect nutrition and falling out of the hair, these signs frequently disappearing under the suitable administration of thyroid extract. Again, alopecia is sometimes associated with goitre, and exophthalmic goitre.

2. In Addison's disease, pigmentation of the skin is a common sign, and from clinical observations and post-mortem findings, it has been discovered that there is a relationship between disease of the suprarenal glands and sexual development, associated either with hypertrichosis or alopecia.

3. Further, it is well known that the reproductive organs exert some influence on the growth of hair. for castration before puberty in man prevents the growth of hair on the face, and recent investiga-

tions at Constantinople have shown that eunuchs do not become bald. While the removal of both ovaries in women is frequently followed by hypertrichosis, and, furthermore, alopecia has been noted to be not infrequently associated with ovarian trouble, and harturition.

4. The pituitary gland also shows a relationship with the trichogenic function, this having been demonstrated by recent experimental work.

A striking example of some definite metabolic influence, probably associated with the ductless glands and affecting the hair, is that seen at puberty, in tinea tonsurans, a disease very resistant to treatment, disappearing spontaneously at this period. From the preceding it will be seen that the internal secretions, and the trichogenic function are intimately associated.

The following constitutes a series of 41 cases of alopecia areata collected without selection, from a general hospital, which go to support the theory which has been put forward.

I. Sex.

Males	29 cases.
Females	12 cases.

II. Age.

Under	10	Years	4	Cases
10	20	„	18	„
21	30	„	10	„
31	40	„	5	„
41	50	„	3	„
51	60	„	1	„

III. Varieties.

	M.	F.	T'l.	Limit Duration Years.	Re-currences
Alopecia areata	24	10	34	1½	11
Alopecia totalis ..	2	1	3	7	0
Alopecia universalis	3	1	4	3	0

IV. Family History.

	Father.	Mother.	Brother.	Sister.	Cousin.	Total
Cases..	4	1	5	1	1	12, or 29 %

Confinement.

Ten of the above had alopecia areata, and 2 alopecia totalis.

V. Injuries, Shock Worry.

Injury.—1, recent case, and 3, showed history of injury some years previously.

Shock.—3, patients all showing alopecia within three months.

Worry.—4 patients complained of having had severe worry.

VI. Nails.

10 cases showed pitting or pitting and ridging of the nails.

VII. Teeth.

Although 32 had decayed teeth this percentage is not unusual in hospital patients.

VIII. Wassermann Reaction.

This test was made in the cases of six patients who gave a doubtful history, all being negative.

IX. Eyes.

Examination was made in a few cases for errors of refraction with negative results.

The theories to which most significance has been attached are:—

1. Tropho-neurotic hypothesis.—According to this hypothesis disease or destruction of the nerve supplying the papilla of the hair inhibits its function, and so produces alopecia. And yet in ordinary cases of alopecia areata the pathological examination of a section does not show any degeneration or inflammatory action in the nerves supplying the bald areas. Again, if alopecia were due to the direct nervous action on the papillæ, then in cases of alopecia universalis the nerves supplying the hair papillæ throughout the entire surface of the body would be affected, which is hard to believe. The majority of patients presenting themselves with alopecia have well-balanced nervous systems, and examining the above mentioned series of cases, it will be seen that it occurs not infrequently before the age of 30 years, i.e., in childhood and early adult life, and this is in accord with general experience. This prevalence before 30 years of age, and more especially in childhood must be considered as evidence against this theory of worry. Doubtless the nervous system is an indirect factor in the production of alopecia, for occasionally patients present themselves showing loss of hair closely following upon some severe shock; and included in the foregoing cases is such an example, viz., a driver of a motor omnibus, who ran over a man with his vehicle, developed alopecia about for or five weeks later. Although it be granted that the nervous system plays some role in these cases, is it not possible that its action is an indirect one, inhibiting, or deranging the normal stimuli to the ductless glands, and so affecting their secretion.

2. Microbic hypothesis.—This is founded, firstly on a few recorded cases of epidemics, but the concensus of opinion is that tinea tonsurans accounted for some of these. Dehu states that careful investigations by Jacquet and others of all reported epidemics in the schools of Paris and in the French Army have failed to find reliable evidence of a single epidemic.

Secondly, the fact that alopecia frequently occurs in families, has been put forward as evidence in support of this microbic hypothesis, and in the above series there was a family history of 29 per cent. of the cases. However their times of development exclude contagion as their cause. Moreover, attempts at inoculation of man and animals have failed, and no pathogenic micro-organism has been discovered. In addition the dystrophy of the nails, which so frequently occurs, points to its being a general affection.

3. Toxic hypothesis.—In this the result of alopecia is considered as being due to the effect of a toxin on the papillæ of the hair, acting through the blood stream. But is it not more probable that the toxin exerts its action on one or more of the ductless glands, which normally control the hair growth affecting the internal secretion in quality or quantity, this in turn acting on the papillæ of the hair. Doubtless the action on the papillæ is through some substance brought by the blood stream. But from clinical experience, and from the results of organotherapy, taken in conjunction with the relationship between the ductless glands and the tricho-

genic function as evidenced both in disease and the results of experiments, would it not seem that in these glands lie the fons et origo, and that the causation of alopecia is due to a derangement of the metabolic activities of one or more of the ductless glands, the secretion from which is passed directly, or indirectly by way of the lymphatics, into the blood stream? The expression "one or more" is used because it would appear that the ductless glands are probably interdependent in their action in certain directions, so that their secretion may be of benefit in maintaining the function of some particular apparatus, or the general functions of the individual as a whole.

Finally, by this hypothesis we can explain:—

1. Temporary cases of alopecia as being due to some functional disturbance of the gland or glands.
2. Permanent alopecia, as due to some definite pathological change.
3. Those cases of alopecia following fevers, typhoid, etc., as due to malnutrition or fatty degeneration of the gland.

THE VISION OF 2000 CONSECUTIVE CASES.

By **T. L. O'Reilly, M.B., Ch.M.,**
Assistant Medical Officer, N.S.W. Railways and Tramways
Sydney.

Within 16 months I have tested the vision of 2000 applicants for the position of locomotive cleaner on the New South Wales railways. As these lads are promoted to the position of firemen and eventually to that of engine driver, the standard required is higher than for any other position. They are first tested, each eye separately, by Snellen's types. Astigmatism is excluded by disallowing any movement of the head while reading the types. Those who reach the 6/6 standard and do not fail in the examination by reason of defective colour sense, or hearing, or physical defect have their accommodation paralysed by the instillation into the eyes of one drop every 20 minutes for four doses, of a 1 per cent. solution of homatropine, with ½ per cent. cocaine, to determine what degree of hypermetropia is present.

The candidates were above the average physique of the Australian youth. They had an average age of 21.3 years, average height 5 feet 7.8 inches, average weight 10st. 7.3lbs., and average chest measurement of 34.6 inches.

Of the 2000 examined, 486 failed to reach the 6/6 standard. Of the remaining 1514, 301 failed on account of other defects, and were not examined for hypermetropia under homatropine, hence in the summary given below, in the percentages of the grades of hypermetropia, the figures have been corrected by distributing these 301 not examined between the different grades of hypermetropes pro rata.

No observation was made to estimate in how many of the 486 who failed to reach the 6/6 standard the defect was due to hypermetropia.

Summary.

486 (24.3 per cent.) failed to read 6/6 with each eye.
Of these 486, 245 (12.25 per cent.) reached a standard of 6/9 with each eye.
94, or 6.1 per cent. (in 1514) had hypermetropia of 1.5D or more.
79, or 5.3 per cent. (in 1514) had hypermetropia of over .75D and less than 1.5.
1341, or 88.6 per cent. (in 1514) had hypermetropia of .75D or less.
Of the 1341 found to have hypermetropia of .75D or less, 309 (equal to 20.4 per cent. in 1514, or 15.4 per cent. in 2000) required no correction with plus lenses, and are therefore emmetropic.
A further 98 (equal to 6.4 per cent. in 1514, or 4.9 per cent. in 2000) only required a correction of plus 25D for one eye, and may be considered to be practically emmetropic.
211 (equal to 13.9 per cent. in 1514, or 10.5 per cent. in 2000) required a correction of plus 25D for each eye.

ON FRACTURE OF THE HEAD OF THE RADIUS.

By **J. G. Edwards, M.B., Ch.M. (Syd.),**
Sydney.

Fracture of the head of the radius is of more frequent occurrance than is generally supposed. Up to 1905 only 48 cases had been reported, and only eight of these had been diagnosed during life. The diagnosis can only be made if a careful Rontgen ray examination is carried out. Since 1905 the more general use of Rontgen rays has shown this fracture to be a fairly common one, and several series of cases have been recorded.

During the last four years I have examined 68 cases of elbow-joint injury, and I have been able to demonstrate a fracture of the head of the radius thirteen times. Eleven of these cases were fractures of the head alone, and two involved both the head and neck of the radius. The whole of the series occurred in adults over 25 years of age.

About a third of the head of the bone is usually broken off, and the displacement of the fragment is slight, as it is usually held in place by the orbicular ligament.

Six of the series were due to direct violence to the elbow, and six were due to indirect violence, such as a fall on the hand, with violent abduction of the forearm. The mode of causation in one case was doubtful.

Two cases were complicated by fracture of the external condyle of the humerus; two were complicated by dislocation of the elbow backwards; one by fracture of the upper third of the ulna, and one by fracture of the coronoid process of the ulna.

The diagnosis of this condition requires considerable care. There was one sign present in all cases, viz., localised pain on pressure over the head of the radius. There was not much swelling in the majority of the cases. It is rarely as prominent as in other fractures in this region. Crepitus was never deliberately sought for, but was noticed in a couple of cases whilst attempting rotation of the bone. Pain over the head of the bone was complained of during rotation. Both flexion and extension were limited to a slight degree, and caused pain when extreme. The latter was interfered with to a greater extent than the former, in the majority of the cases. Limitation of both pronation and supination (especially the latter) was noted. Skiagrams from three directions were taken, viz., antero-posterior, lateral, and oblique (with the head of the radius close to the plate, and the arm rotated outwards).

The prognosis of these cases is not good. Great disability results if the fracture be not detected, and the case be treated as a simple sprain, and early movement allowed.

In the cases which I have been able to follow the results were as follows:—

Two showed marked impairment of pronation and supination; two showed impaired extension; one showed loss of flexion beyond a right angle; one, which was first, seen ten weeks after the accident, and had not been treated during this time, had an ankylosed joint, and one case developed gonorrhœal arthritis.

In one of the cases the head of the radius was displaced, and lay behind the lower end of the humerus. This patient was advised to have an operation for the removal of the fragment, but refused, and when seen six months after the accident had a very good result with only some impairment of extension.

The best results were obtained by complete fixation in extreme flexion, under anæsthesia. No movements were allowed for three weeks, and on each occasion the bandages were removed, the elbow was well massaged prior to their reapplication. All bandages were removed at the end of three weeks. Active and passive movements were then allowed, the arm being kept in a sling. The movements were increased every two days by lowering the sling about an inch. After about five weeks the sling was removed, and the patient allowed to use the arm freely. By this method a perfect result is obtained as regards flexion, which is the most important movement of the elbow joint. Extension is at first limited, but gradually increases with use of the elbow.

The presence of a loose fragment of bone is an indication for early operation for its removal. One of this series was operated upon. About a third of the head of the radius was lying loose in front of the joint, and was removed. The patient made a good recovery, and a perfect functional result was obtained.

Dr. Sydney Pern, of Collins Street, Melbourne, has undertaken a statistical investigation concerning the prevalence of goitre and its clinical features. He appeals to practitioners throughout the Commonwealth for assistance. The information, when collected, will be dealt with by Dr. Pern and a sub-committee of the Victorian Branch of the B.M.A. appointed for the purpose.

Medical practitioners are requested to send in to Dr. Pern their experience of cases of goitre in the form of replies to the following questions:—

(1) Number of cases of goitre (all forms of enlargement of thyroid gland) in district.
(2) Number of cases of goitre which show any or all of the following symptoms: Tachycardia or palpitation, tremor, protrusion of eyeballs, abnormal perspiration, abnormal flushing, pigmentation, and nervousness.
(3) Number of cases of goitre which do not show any of the symptoms or signs enumerated above.
(4) Sex incidence of goitre (males, females).
(5) Age incidence of onset of disease—
  (a) Under 10 years of age.
  (b) Between 10 and 20 years.
  (c) Between 20 and 30 years.
  (d) Between 30 and 40 years.
  (e) Over 40 years of age.
(6) Approximate duration of goitre in typical cases in the district.
(7) Family incidence of goitre or inherited tendencies to goitre or family tendency to presence of tremor, tachycardia, abnormal flushing, and excitability, without enlargement of thyroid gland.
(8) Conditions of life under which goitre has occurred—
  (a) Water. Special note being taken of drinking water, whether rain-water obtained from ordinary galvanised iron tanks, or water from underground wells or creeks.
  (b) Milk. Whether any or a fair amount of fresh milk is taken in the diet.
  (c) General type of food and diet.
  (d) Geological formation of district in which goitre cases occur as regards presence of lime-stone, hill country with valleys, presence of rivers or creeks.

Reports of Cases.

A SECOND ECTOPIC GESTATION UNDER UNUSUAL CONDITIONS.

By **G. Rothwell Adam, M.D. (Melb.),**
Melbourne.

A second tubal gestation is not of very unusual occurrence. The following case, however, presented such anomalous conditions that it appears to be worth recording.

Mrs. W. C. L., aged 28 years, married five years, and the mother of two children. The obstetric history revealed nothing abnormal.

On July 2nd, 1913, she was admitted into a private hospital with all the evidence of a profuse intra-abdominal hæmorrhage. The abdomen was opened, and the left tube, which was gravid, was removed. Owing to the condition of the patient necessitating rapid work, the uterine stump of the tube was not excised, although it was removed close to the cornu. She made a satisfactory recovery, but did not recover completely from her profound anæmia.

In the beginning of April, 1914, she consulted her usual medical attendant, Dr. Ramsay Webb, because she thought she was pregnant, having missed one menstrual period. He regarded her condition as a normal pregnancy, but referred her to me. Careful examination showed the uterus to be enlarged, corresponding to the period of amenorrhœa. A slight irregularity at the left cornu was attributed to some adhesions round the stump of the fallopian tube, which was removed at the previous operation. No swelling was detected in the region of the right appendages, and the opinion was given that the pregnancy was normal.

On May 20th, 1914, she was again seized with signs of intraperitoneal hæmorrhage. She was moved to a private hospital. The abdomen was opened immediately, when it was found that a rupture of the stump of the left fallopian tube had taken place. The cornu of the uterus appeared to be enlarged, and to have formed part of the gestation sac. This was excised along with the stump of the fallopian tube, and sutured in the usual manner. As the right tube appeared to be constricted by old adhesions, it was deemed advisable to excise it as well, in order that she should not run the risk of a third ectopic gestation. Recovery was complicated by an attack of right-sided pneumonia which developed the day after operation, but ran a favourable course. She was able to leave the hospital in about five weeks' time.

Naturally the patient's fear of an accident similar to the previous pregnancy led her to seek medical advice when she thought she was pregnant, although she presented no symptoms pointing to an abnormal pregnancy. The general uniform enlargement of the uterus and the absence of any swelling in the remaining tube seemed to justify the diagnosis of an intra-uterine gestation.

The will of the late Mr. George Russell, of Langi Willi, Linton, Victoria has just been proved. His real estate is valued at £104,520, and the personal estate at £151,654. Among the bequests Mr. Russell left £200 to the Ballarat Hospital.

Sir Bertrand Dawson, K.C.V.O., M.D., F.R.C.P., Physician-extraordinary to his Majesty, has been appointed Physician-in-ordinary to his Majesty, in the place of Sir Francis Laking, deceased. His Majesty has also appointed Frederick Stanley Hewitt, M.D., to be Surgeon-Apothecary to the King, and Apothecary to his Majesty's Household, in the place of the late Sir Francis Laking.

THE NEW DENTAL BOARD.

It is notified in the "Gazette" that the Minister for Public Health has nominated the following to act as the board of control and business committee of the United Dental Hospital of Sydney:—Board of Control—Mr. J. H. Cann, M.L.A., Chief Secretary, chairman; Mr. G. H. S. King (Under-Secretary of Public Health), Dr. R. T. Paton (Director-General of Public Health), Mr. Peter Board, M.A. (Under-Secretary of the Department of Public Instruction), Dr. C. S. Willis (Principal Medical Officer), Professor Sir T. P. Anderson Stuart, Messrs. H. C. L. Anderson, J. S. T. McGowen, M.L.A., E. J. Kavanagh, M.L.C., Donald Smith, E. K. Satchell, J. H. Bradley, Drs. A. Burne, L. A. Carter, H. R. Greenwell, W. S. Hinder, E. R. Magnus, R F. Reading. Business Committee—Mr. J. H. Cann, M.L.A., chairman, Mr. G. H. S. King, Dr. C. S. Willis, Dr. E. R. Magnus, and Mr. Donald Smith.

Medical Journal of Australia.

SATURDAY, JULY 25, 1914.

Medical Inspection and Treatment of School Children.

Those who are concerned with the health of nations recognise that the care of the infant and of the school child is the first factor in the building up of a strong race. This principle has been accepted in all civilised countries, and various expedients have been adopted to achieve this end. In regard to the improvement of the physical condition of school children, two stages are recognised, and these should be kept absolutely distinct and should be dealt with by separate persons. The more important, requiring special skill and minute care, is the detection of defects which are amenable to treatment and which should be treated expeditiously and thoroughly. Some difference of opinion has been expressed as to the best manner of conducting an efficient inspection of school children. In England and for the greater part of Germany, the system of the school clinic has received favour. This system depends on the establishment of a well-equipped centre, either in or near the school, where expert medical inspectors, can perform a routine inspection of every child in the school. In England, each child is examined once on entering, once dur ing the school life, and once on leaving the school. Under special circumstances, further examination may be conducted. The object of the examination is to discover existing defects of eyesight, in the nose, throat, and ears, in the teeth and chest, and in the skin, in order that treatment may be applied. In the early days of the medical inspection of school children in England, the Board of Education issued a circular in which it was pointed out that the inspection was but the first stage of a wider scheme, which aimed at the wholesale amelioration of the defects discovered. There is no doubt that the examination of a large number of children can be more rapidly and efficiently carried out in a centre, but the shortcomings of the English system are obviously those of insufficiency. In the large elementary school in Charlottenburg, near Berlin, the chief medical inspector found, after some years of experience, that the school clinic system was not so good as a home system. The reason for this lies rather in the facilities of applying the treatment necessary to remedy the defects than in those directly connected with the examination. In the majority of places, where the proper control of the health of school children is carried out, it has become obvious that it is more economical, more advantageous to the work and less difficult to deal with large numbers of children, if the examination be conducted in one centre. But in the interests of the individual, it is equally obvious that no treatment should be given at the clinic. An efficient medical inspector should be appointed to examine the children, especially in regard to those defects which are common in children, and which require medical attention. In this work, the services of a well-trained nurse are invaluable. The inspector should carry out the examination in a routine manner, but as each child is presented, a short report should be given by the teacher, in order that any special suspicion of defect, which has been noticed, may receive special attention. It is unnecessary for this inspection to take the form of a thorough anthropological examination. The records of height, of weight, of chest measurement, and of growth are of great importance from many points of view, but these matters are not pertinent to the work of the official school inspector, save in a series of cases, for the purpose of controlling the general effect of special hygienic measures adopted as an experiment. The examination should be directed primarily and especially to the detection of treatable defects. If all the cases of adenoids, of deafness, of errors of accommodation, of ringworm and other skin affections, of scoliosis, of decayed teeth and the like are recorded, the second portion of the machinery can be put into action to remedy the defects, and to improve on a large scale the general health of the children. As is the case in all important national schemes, the work required from skilled persons should be properly remunerated. The medical inspector should be well paid and not overworked, for in this way alone can efficient and thorough work be guaranteed. While there may be some risk of this routine work becoming tedious and of a ten-

dency to its being conducted in a slovenly manner after the inspector has been employed for some time, it is certain that the work will be far better if the inspector be not allowed to undertake the treatment. The employment of the most capable experts will no doubt safeguard against carelessness, and if the parent, school teacher, and school nurse be present as well at each visit, there will be little risk of deterioration in the work. In another column will be found a brief resume of two reports of school inspectors, from which it will be seen that the work both in Melbourne and Adelaide is conducted with laudable care and thoroughness. But it would appear that there is room for extension in several directions, and a real necessity for the adoption of a uniform scheme for rendering this work of the maximum utility.

After the defects are discovered—and it should be pointed out that repeated inspection of every child is necessary to obtain good results—the inspector should recommend the parent as to the course he should pursue. In the first place, the parent should be advised to have the treatment carried out by his usual medical practitioner, who knows the family, and is therefore best able to carry it out efficiently. A card should be given which the parent is to take to the doctor. On this card the inspector will enter a bare statement of the defect discovered which requires medical attention. The nurse should ascertain whether the treatment has been carried out within a reasonable time. If after a certain time, varying according to the urgency of the case, treatment is not obtained, or if the parents plead incapacity of paying for it, an order should be given to the parent, authorising him to obtain treatment from a practitioner who is paid by the State. Whether this practitioner be a whole-time or a part-time officer must depend on the local conditions. In the case of part-time employment he should receive payment per case and not a salary, and it would be advantageous both to the children and to the profession if the parent were allowed to select a doctor from among those who are willing to undertake this treatment, in the district. After the lapse of a certain time the school nurse should have power to take the child from the school or from its home to the doctor for treatment, without the consent of the parent. Measures should be adopted to ensure that every child found to be defective at the examination should undergo treatment, not only in its own interest, but also in the interest of the race.

Further machinery should be evolved for the special treatment of defective children, who are better placed in special schools. The existing system of dealing with mentally defectives, if rendered a little more efficient, should be satisfactory. More care is, however, required to avoid placing children with treatable defects, such as cretinism, in schools for the mentally defective, for obvious reasons. Besides the schools for deaf mutes and the blind, schools for myopic children, after the pattern of Bishop Harman's school under the London County Council, should be established, and special care should be given to the proper treatment of the children in each of these schools. Open-air schools for children suffering from surgical tuberculosis should also be set up, since the disease is very chronic, and education is neglected when the children are kept at home or in purely medical institutes. The future existence of the young can be rendered vastly more useful if a wise combination of the educationalist and the medical practitioner be effected. But in all these endeavours, it must be recognised that good results are only obtainable if specially trained men and women are employed; and if they are remunerated in accordance with the nature of their work and its importance to the community.

NATIONAL INSURANCE.

In his great speech at Parramatta on the 15th of this month, the Prime Minister, Mr. Cook, stated that he hoped that a system of insurance would be framed which would secure the acceptance and co-operation of the friendly societies, of the medical profession, and of the other bodies interested. He pointed out that exhaustive inquiries were being made in regard to this subject, and that the directly interested associations and persons were being approached in this regard. Among the interested parties the medical societies of all the States are mentioned. He further stated that the experience of National Insurance in England and in Germany would be taken into account in the drawing up of the scheme. We understand that if Mr. Cook is returned to power his party is pledged to a national insurance scheme on a contributory basis. We would point out to him that the only medical organization which can be regarded as representative of the medical profession in Australia is the British

Medical Association, and that if the scheme is to have the support of the profession, the sympathy of the Association must be obtained from the first. Mr. Lloyd George promised to consult the Association before framing his scheme, but failed to keep his promise. We trust that Mr. Cook will not follow in this line. Experience has shown that a well-organised medical profession can make or mar any insurance scheme which provides sickness benefits. The profession in Australia will not withhold its wholehearted co-operation if the scheme be acceptable, and if it be thought to be in the best interests of the community. But it certainly will require to be consulted from the first in regard to those details which affect the profession, and to which the medical profession has given much consideration. The shortcomings of the English and of the German schemes have taught the profession how to act, and the difficulties in Australia should be less than those in Europe in regard to arriving at unanimity in the profession. We shall have the opportunity within a very short time of examining the data on which Mr. Cook is basing his scheme of national insurance, and propose to deal with the whole question in some detail. In the meantime, we feel convinced that Mr. Cook will, as soon as he is returned to power, approach the Federal Committee of the British Medical Association, and obtain from it a definite expression of opinion in regard to the terms of service which would be acceptable to the profession.

THE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION IN ADELAIDE.

The South Australian Branch has recently received from the Friendly Societies' Medical Association Incorporated, in response to the model agreement submitted to it, a modified draft, in which two points are materially altered. In the first place the increase of remuneration has been reduced from 20 per cent. to 10 per cent., and in the second place the clause dealing with the wage limit has been deleted. The Branch will have to determine whether the modified agreement is as acceptable or not. This association, which at the present time is not in the good books of the Branch, has issued a circular in which the following sentence appears:—

> "These social benefits can be secured by country branches without in any way altering present local medical arrangements, and will constitute a valuable adjunct to the local doctor in cases where city facilities are not otherwise provided for."

This statement, in so far as the members of the British Medical Association are concerned, is incorrect. We are informed that no member of the South Australian Branch will act as surgeon to a lodge which is or becomes affiliated with the Friendly Societies' Medical Association Incorporated.

OPEN-AIR PAVILIONS IN SCHOOLS.

The "Age" of July 13th reports that the provision of open-air pavilions in the State schools in Victoria by the Education Department has not proved a success during the cold weather. It is stated that in winter time, even with all the sides closed in, these pavilions are cold and comfortless, and that many of the scholars are absent owing to colds contracted in the pavilion. A movement is being started to expand this system. We are of opinion that the objections to open-air pavilions are not well-founded, and that all that is needed is some means of warming the air, either by stoves or by radiators. It is of course easily understood that the spread of infection of what are commonly spoken of as colds should be attributed to the effect of cold and moist atmosphere. It is not unlikely that catarrh would be still more prevalent were the children kept in a room with a door and windows hermetically sealed. The public cannot be too forcibly impressed in regard to the health-giving properties of fresh-air. We trust that the system of keeping school children as much as possible in the open-air, even during the winter months, will be extended and not checked.

MOSSMAN FEVER.

Dr. Brienl (Director of the Institute of Tropical Medicine, Townsville, Queensland), Mr. Priestly, and his assistant have left for Port Douglas, with the object of investigating the cause and nature of the disease known as "Mossman fever." This fever occurs only in the Mossman district, and every year during the cane-cutting season a number of men are admitted to the Port Douglas Hospital suffering from the disease. The mortality of the fever is low. Dr. Brienl is taking with him all the necessary apparatus for conducting the research into the nature of the infecting organism. It is anticipated that he will be away from Townsville for about a month.

THE SOUTH AUSTRALIAN PARLIAMENT.

At the opening of the South Australian Parliament on the 16th instant, his Excellency the Governor delivered his speech. No reference is contained in the speech to matters affecting the medical profession.

THE WELLCOME HISTORICAL MEDICAL MUSEUM.

The Historical Medical Museum, which was founded by Mr. Henry S. Wellcome in connection with the Seventeenth International Congress of Medicine, was re-opened on May 28th as a permanent institution in London. It is now known as the "Wellcome Historical Medical Museum," and is open daily from 10 a.m. to 6 p.m., closing at 1 p.m. on Saturday, entrance 54A Wigmore Street, Cavendish Square, W. Since closing last October the collections in the Museum have been considerably augmented and entirely re-arranged. Many objects of importance and interest have been added, which it is hoped will increase the usefulness of the Museum to those interested in the history of medicine. Members of the medical and kindred professions are admitted on presenting their visiting cards. Tickets of admission may be obtained from others interested in the history of medicine on application to the Curator, accompanied by an introduction from a registered medical practitioner. Ladies will be admitted only if accompanied by a qualified medical man.

The fifteenth annual meeting of the Australian Trained Nurses' Association will be held at the B.M.A. Building, 30-34 Elizabeth Street, Sydney, on Thursday, July 30th, 1914, at 8 p.m. The business will consist of the adoption of the annual report of the Council and of the statement of accounts, the election of office-bearers for the year 1914-15, and the consideration of the following motion:—"That steps be taken to have Australia represented by Nursing Exhibits at the Panama Exhibition.

Abstracts from Current Medical Literature.

PATHOLOGY.

(28.) Serological Diagnosis of Typhus.

B. Jablons ("Journ. Med. Research," May, 1914) has carried out some investigations in connection with the complement deviation test in typhus fever during the Turko-Balkan war. The antigen used was an alcoholic, and also an aqueous, extract of rabbit's liver. The technique employed was a modification of Wassermann's reaction. Nine out of the first ten cases gave a marked positive reaction, that is the serum inhibited hæmolysis. These patients were all examined during the acute stage of the disease. He further found that a typhus organ extract is not necessary for the reaction, and the components are therefore not specific for the disease. In the next place, he experimented with a serum of his typhus patients in regard to agglutination. The bacteria used were bac. typhosus, bac. paratyphus A., bac. Shiga and bac. Flexner. Thirty-two cases were examined. Four gave weak reactions with Flexner, four gave strong reactions with typhoid bacilli, and two gave good reactions with paratyphus. The apparently conflicting results are explained by the author by the fact that all the reacting patients gave a history of having had diarrhœa and fever in a district where typhoid and dysentery were endemic. Attempts were made to isolate microorganisms from the blood and fæces, and also from the organs of two patients, who had died of typhus. The cultures, however, remained sterile, save in those cases in which contamination with staphylococci and streptococci took place. One rabbit and one guinea-pig were inoculated intraperitoneally with two c.cm of blood taken from a patient in the first week of illness. The results were negative, and this investigation had to be interrupted on account of an outbreak of cholera among the troops. He concludes that the negative bacteriological results and the positive results of the complement deviation test point to the probability that this disease is caused by a protozoan organism.

(29.) The Pathology of Gastric Ulcer.

G. M. Smith ("Jour. Med. Research." May, 1914) has conducted a series of experiments for the purpose of ascertaining what part, if any, is played by the bile acting on the mucous membrane in the production of gastric ulcer. He concludes that when introduced into the stomach of the cat or dog, bile, associated with an excess of 0.5 per cent. of HCl, may produce injury to the mucous membrane, while bile or acid alone is harmless. The lesions produced by bile in the presence of an excess of hydrochloric acid consists of necrosis of epithelium and interglandular tissue, with hæmorrhages into the mucous membrane. Small superficial ulcers form in these sites. Ulceration of the mucous membrane produced by the introduction of bile and acid into the stomach from the duodenum takes place most readily between the third and fifth hour after meals, and least readily in the fasting stomach, or shortly after the ingestion of food. Bile with 0.5 per cent. HCl exerts a more toxic action on the gastric epithelium, when the oesophagus and the duodenum are ligatured. The presence of mucus in the stomach protects the gastric epithelium against injury by bile and hydrochloric acid.

(30.) Inclusion Bodies in Scarlet Fever.

William Macewen ("Journ. Path. and Bact.," 1914, No. 4) deals with Doehle's leucocytic inclusion bodies in the blood of persons suffering from scarlatina and other diseases. These bodies were first described in 1911. They are found in the cytoplasm of the polymorpho-nuclear leucocytes, and have bacillary, coccoid, diplococcal, streptococcal, pyriform, annular, and amorphous forms. They vary greatly in size. They are present in the blood of scarlet fever patients in about 70 per cent. of the polymorphs. Doehle also described a spirochætal form which he termed "spirochæta scarlatinae." Macewen found the inclusion bodies in practically every case of scarlet fever during the first week, but states that they are not of etiological importance. They are accompanied by a marked leucocytosis. The spirochaetal form is found in other diseases besides scarlatina, and therefore has no claim to the title given to it by Doehle. Inclusion bodies are also found in the blood of measles patients, but are usually small in size and few in number. In this disease a leucopenia and not a leucocytosis is met with. The inclusion bodies are found during the acute stage of diphtheria, and at times in association with the serum rash. No inclusion bodies were found in association with roetheln. This fact, coupled with the absence of leucocytosis in German measles is a valuable aid in differentiating it from scarlet fever. In typhus, erysipelas, and septic conditions, the inclusions are large and numerous. In phthisis a few small inclusion bodies are found at times.

(31.) Irradiation of Mouse Carcinoma.

B. H. Wedd, A. C. Morson, and S. Russ ("Journ. Path. and Bact.," 1914, No. 4) have experimented with the inoculation of mouse carcinoma cells which have been irradiated in vitro by radium for periods of an hour and upwards, with a view of ascertaining whether immunity can be produced in this way. Fifteen days after the inoculation the mice were subjected to a test inoculation of the same strain of tumour, which produced typical carcinoma in normal mice. They found that immunity can be produced in this manner, but the prolonged irradiation of the cells abolished this immunity-conferring power without destroying the power of the cells of proliferating. They adduce some evidence to show that the frequency of recurrence of this tumour after operation is diminished, if the mice are re-inoculated with irradiated tumour.

(32.) Status Lymphaticus.

E. Emrys-Roberts ("Jour. Path. and Bact.," 1914, No. 4) analyses 10 cases of sudden death associated with enlarged thymus gland. The age of the patients varied between six months and 21 years. With the exception of one case, death occurred suddenly and unexpectedly from apparently trivial causes, and it was found after death that the thymus, and in several of the cases the lymphatic glands and lymphoid follicles of the alimentary canal were enlarged. The author is of the opinion that it is necessary to determine whether the thymus ceases to grow about the age of puberty. He throws up the question whether in typical cases of status lymphaticus the enlargement of the gland differs physiologically from that which gives rise to pressure symptoms. He assumes that death in these cases is due to the effect of the internal secretion of the thymus. Further evidence is required to substantiate the theory that status lymphaticus can occur endemically. From his investigations he concludes that sudden death is frequently associated with this condition and vice versa; that sudden death in status lymphaticus is associated with respiratory failure; and that it is by no means necessarily accompanied by an enfeebled constitution. He had ascertained that the persistence of the thymus is not incompatible with full development in activity of the genital organs in the female. The anatomical relations of the enlarged thymus, save when it extends upwards and backwards, do not permit of its interfering with the vagus nerve or of its inducing reflex spasm of the glottis. In certain cases pressure symptoms on the neighbouring structure may be produced by an enlarged thymus. He doubts whether these cases should be included among those of status lymphaticus, because anæsthesia and operative interference are well borne.

PEDIATRICS.

(33.) Experimental Rickets in Dogs.

Koch ("Muench. Med. Wochensch.," 1914, No. 3) has produced a rachites-like disease in dogs through infection with streptococci, and believes that spontaneous rickets is an infectious disease also. The disease developed more quickly in infected animals kept in the stable and not allowed to run about in the yard.

(34.) Abnormal Growth.

Brina records a case of abnormal growth ("Riesenwuchs") with atrophy of the sexual organs ("Arch. f. Klin. Chirurgie, vol. 103, 3). The patient

was a boy of 8 years, who had attained the height and features of a child of 15 or 16 years; his lower extremities were relatively short, but his body was very greatly increased in length. This was not a case of merely exaggerated growth, but a rare occurrence of genuine, general giant-growth. The boy will probably reach an extraordinary height by the time he finishes growing. The abnormal size and development chiefly affect the bones. Existing deformities of the lower extremities and exostoses render it probable that the primary disease was situated in the osseous system. The penis and scrotum were ill-developed in contrast to other parts of the body. Both testes were present, but were very small.

35.) Cirrhosis of the Liver with Hypertrophic Osteo Arthropathy.

G. C. M. Kolff (Nederl. Tijdschr. voor Geneesk, 26th April, 1913) records a case of a young man, 19 years old, who was suffering from juvenile biliary cirrhosis of the liver and infantilism. He had enlargement of the end phlanges of the fingers. The joints of the wrists, elbows, knees, and feet were enlarged. The knee joints contained fluid. The terminal phalanges of the fingers could easily be over-extended. The radiograms demonstrated a transparency of the ends of the diaphyses, which were of bulky size; the end phalanges of the fingers had small, bony excrescences. The sella turcica was not enlarged. In the author's opinion the cirrhosis of the liver in this and similar cases had damaged the function of some organs with internal secretion, infantilism and bony alterations resulting.

(36.) An Angiosolerotic Alteration in the Bone.

Serra (Deutsche Zeitschrift f. Chir., vol. 127, p. 380), reports two cases of bone necrosis, caused by vascular disturbance. The first patient, 60 years of age, had a focus in one os calsis, the second in the head of tibis. Pain, localised in the bone, had some on in attacks, had increased with time, and was accompanied by redness of the skin over the focus, without the formation of an abscess. There was tenderness on pressure. The radiogram revealed rarefication of bone, slowly progressive, without destruction. The bone necroses were removed. Histological examination of the first case showed: Bony necrosis in the centre part with the classical signs of halisteresis of the spongy matter, and thrombosis of vessels; fibrous, periphereal osteitis caused by the local congested and embryonal metaplasia of the marrow as a consequence of the operation. The primary cause of the complaint is angiosclerosis. The treatment consisted in the excision of the focus. This was rendered necessary by the extreme painfulness of the affection.

(37.) Fat Embolism in Fractures.

Siegfried Amberg writes on fat embolism in fractures with special consideration of the early symptoms (Weiner Klein. Rundschau, 1914, No. 8). A severe case of fat embolism, successfully operated upon by Wilms, induced the author to undertake a close investigation of cases observed during the last ten years, in the clinics of Bale and Zurich. He draws the following conclusions: Wilms' operation in cases of fat embolism (ligature of the thoracic duct) is reserved for patients only who have survived the examination by 24 hours. The first sign of fat embolism which is frequently observed alone, but usually in association with other symptoms, is restlessness, often accompanied by some disturbance of consciousness. This cannot be accounted for by any other change in the patient's condition. It is absolutely necessary for the diagnosis of fat embolism to prove the presence of a free interval, which may last for only a few hours. The state of pulse and temperature is of importance for the diagnosis. As a rule a gradual fall of temperature and a gradual increase of the pulse-rate is noted. We do not possess any means of distinguishing a fatal embolism from that giving a better prognosis.

(38.) Connective Tissue as a Plastic Material.

Rehn (Muench. Med. Wochensch, 1914, No. 3) records some experiments on animals, where cutaneous and subcutaneous connective tissue was used to replace considerable defects of tendons. From a long strip, comprising all layers of the skin, the epidermis and the greater part of the cutis was removed. A new tendon was formed out of the remaining subcutaneous connective tissue by plaiting. This was sutured into the defect in a stretched position. The implanted part healed in and formed a good working tendon. Rehn has applied this method three times with complete success (replacement of extensor tendons of the hand). The greatest length bridged over by twisted subcutaneous connective tissue was three inches.

(39.) Primary Angioma of the Muscle.

Serra (Langenbeck's Archiv, vol. 103, 4) records the case of a girl of 21 whose right knee was flexed and partly deformed. A long narrow tumour, containing some fluid, occupied the proximal and lateral side of the joint, apparently corresponding with the upper recessus. Contraction of the quadriceps did not alter the shape or size of the swelling. Fluctuation was absent. The tumour was of a soft, almost gas-like consistency. Under pressure it became dented. Under X rays no alteration of bone or joint was seen. A large muscle angioma was found at the operation. This was removed successfully.

(40.) Treatment of Tuberculosis of Ribs and Sternum by Rontgen Rays.

Pittroff (Munech. Med. Woch., 1914, No. 7) reports 21 cases of caries of the ribs and sternum, which were treated in the surgical clinic in Heidelberg with X rays. After the diseased parts had been resected, the tuberculous granulations removed with the sharp spoon, and the cold abscesses aspirated, an energetic X ray treatment was carried out. Twelve patients recovered completely; in two others a complete cure may result; three cases were markedly improved, and in four cases the disease had progressed.

(41.) Treatment of Tuberculosis of the Knee Joint.

F. Els (Bruns' Beitrage f. Klin, Chir., vol. 87, p. 51) publishes the results of his analysis of Garre's material of 454 cases. Conservative treatment has given few encouraging results. Many of those who were treated at first by conservative means had to be operated upon later on, so that only 86 were treated conservatively throughout; 6.2% of these gave a good, and 45.3% an unsatisfactory result. Among operative means, arthrectomy, performed only 13 times, gave such bad results that it was abandoned. Primary amputations were performed in 32 cases on account of advanced age or desperate condition of the patient. Resection was performed in 268 cases. The early results were: 87.73% of cures, 5.59% improvements, 6.74% relapses, 3.74% late amputation, 2.24% deaths. Lasting benefit for at least one year after operation was achieved in 174 cases; 83.6% of these cases obtained an excellently useful limb. The resection gave such a good result in many of the young individuals that the author considers that it should be performed in cases of grave destruction. Conservative treatment, however, should be attempted in young subjects.

(42.) Progressive Muscular Atrophy in Syphilitics.

Leri and Leronge (Gaz. des hop. 86 e annee No. 55, p. 885) record six observations of this condition, and draw attention to the fact that the disease is so like Aran-Duchenne's amyotrophia in its symptoms (progressive character in the upper extremities, fibrillary contractions, signs of degeneration, no disturbance of sensibility and sphincters), that, in spite of a negative anamnesis, it may prove suspicious of being syphilitic by the presence of Argyll-Robertson's symptom, a positive Wassermann, a lymphocytosis of the cerebro-spinal fluid, and pains in the atrophied limbs. Specific treatment is indicated, but the symptomatic treatment of the muscular system (massage, gymnastics) must not be neglected.

THE ROMANCE OF MEDICINE.

IX.

ROMAN MEDICINE—THE ENCYCLOPAEDISTS.

By **J. W. B. Bean, M.D., B.C. (Cantab.),**
Sydney.

Firmly though Greek medicine was established in Rome it never quite lost its earlier stigma. True it is that the leaders in medicine were honoure dand socially well received, yet deep down in his heart the Roman Patrician still kept his ancient prejudice against the alien and the adventurer. Then, too if we except a few great luminaries, the doctors of Rome were for the most part slaves or freed men. In spite of this the superiority of Greek medicine was admitted without question, and the Roman became possessed with the Greek enthusiasm for knowledge.

The Roman, above all things a utilitarian, was strongly drawn to the study of medicine. He felt it was but decent and becoming that a practical man should understand the workings of his own body so far as they could be made known to him; should have some grasp of the main principles underlying the health of the individual and the community. His pride forbade him to become a professional man—a general practitioner—but that very pride drove him to the study of medicine as an amateur. As he scorned to practise on the masses (Odi profanum vulgus et arceo!), so he hated the thought that slave, freed man, or alien should intrude into the private life of his nearest and dearest; should view the sufferings and weaknesses, or share the confidences of his women folk. There was, moreover, a satisfaction to the orderly Roman mind in collating vast masses of knowledge, in arranging, rearranging, systematising, indexing, and the Latin tongue, though less subtle and poetic than Greek, was a magnificent medium for clear practical orderly thought.

There, then, we have those several factors, which produced the great encyclopædists Varro, Celsus, Pliny, and Dioscorides.

Medicine was not the only subject of their labours. Philosophy, law, agriculture, the art of war, statesmanship, rhetoric, botany, and natural history were all attacked in the same way, but the Encyclopædia of Medicine was their most difficult task by far. To begin with, there was no Latin medical nomenclature; further than this, the Patrician Roman—a book student rather than a practitioner—found it hard critically to survey and elaborate the facts at his disposal. Yet to the iron Roman will difficulties were but fresh incentives—everything yielded to his monumental industry.

Marcus Terentius Varro (117 B.C.-26 B.C.) is the earliest of these "summists." He was a many-sided man of great parts and inexhaustible energy. He gathered during his life vast stores of knowledge, and was known as "the most learned of the Romans." He was man of action as well as scholar, holding high command in the Roman Navy, under Pompey, and acting as legate to him in the province of Spain. When Pompey fell and Julius Cæsar triumphed, Varro made his peace with Cæsar, who set him to collect and organise a great library. Varro's literary output was tremendous (he is said to have written 490 volumes), but only two of his works have come down to us—his great "Summa," or Encyclopædia (Disciplinarium libri IX.), and a treatise upon agriculture (Rerum Rusticarum, libri III.). Both of these dealt with medicine. Varro rightly attributed malaria to a micro-organism. "Moreover," he says, "it must be noted that wherever you find marshy ground . . . . there exist certain minute animalcules, too small to be seen of the eye, which, being drawn in with the air through mouth and nostrils, lodge in the body, and give rise to serious diseases." He gives rules of hygiene to be followed out in the construction of country houses, and tells how by isolation, ventilation, and rebuilding of houses he stayed a devastating epidemic in Corcyra. In a previous article it was remarked how advanced was Roman hygiene—the fruit of much dearly-bought experience and hard fighting with an unhealthy and malarial environment. Vitruvius Pollio—the "Christopher Wren" of the Augustine era—was an expert in hygiene. The site of choice for your villa, said he, should be high, sheltered from wind and mist, protected from extremes of temperature, and far from the poisonous exhalations of the marshes. Shun those places where the livers of slaughtered animals are found greenish-yellow in colour. Pollio realised the poisonous effects of lead in drinking waters, and the diseases of workers in lead, and condemned the use of lead-piping for water spuply. He gave it as his opinion that goitre was due to the drinking of the water of certain neighbourhoods.

In the Golden Age of Latin literature, in the flowering time of Roman intellect, at the close of the Great Age of Augustus the Emperor, lived and wrote Celsus, the greatest medical encyclopædist of ancient times. From his writings we get invaluable help in correctly picturing the evolution of medicine—it is the chief source of our knowledge of Alexandrian medicine. Aurelius Cornelius Celsus conceived and compiled his great "Summa" entitled "Artes," probably between the years 25-35 A.D. He intervened between Virgil, Horace, Ovid, Livy, of the previous generation, and Martial, Juvenal, and Tacitus, who immediately succeeded him. He is well worthy of a place amongst the classics of Roman literature as much for his finished style as for the merit in the subject-matter of his writings. As a critic he is masterly, broad-minded, temperate, impartial, showing due reverence for authority, above all for the greatness of Hippocrates, yet not slavishly bound to tradition, well able to form decisive judgments drawn from the fruits of his own experience. His "Summa" dealt with rhetoric, philosophy, and jurisprudence, the arts of war and agriculture, and finally with medicine. "De Medicina libri Octo" treats first of the history of evolution of medicine from its earlest days to the time of Asclepiades and Themison. Allbutt extols "this brief but admirable introduction, which gives a rapid but vivid glimpse of medical history in classical times."

Neuburgher says of it:—Celsus "points out how therapeutics gradually became divided into the branches of pharmacology, dietetics, and surgery, and pronounces with dignity, devoid of bias or passion, an impartial judgment upon the relative merits of the Dogmatic, Empiric, and Methodic Schools. The section in particular wherein he indicates the speculative errors of the Methodists is among the best things the neglected field of medical criticism can show." Let us quote a few passages to prove the discriminating wisdom and enlightened views of this writer of the far past:—

"Most true it is," says Celsus, "that, than experience, naught gives more to the science of healing. Yet although there be many things not directly part of that same special art (of medicine), none the less do these help it by stimulating the minds of its practitioners. 'Tis like, indeed, that both Hippocrates and Erasistratos and whosoever, not content with the mere regime of fevers and ulcers, have peered deep into the causes of things, studying carefully their facts from every standpoint, 'tis like that such have become thereby more than mere 'medicos'—that they have shone rather as the Great Lights of Medicine."

Again, he says, "For this art (of medicine) is a speculative one (not an exact science), and should include, for the most part, not alone theory, but practice. I think, indeed, that medicine should be practised along rational lines."

And again, with regard to vivisection: "To cut up the bodies of live persons is both cruel and useless. Dissection of the dead, however, is necessary for students."

In respect of giving to all their due of praise, he says: "Not indeed should we deny to men of a latter day the credit for all that they have discovered or rightly held to; no less, on the other hand, should we credit those of earlier times with their rightful discoveries and theories."

His writings are rich in aphorisms, revealing the loftiest ethics. He tells how Hippocrates was never afraid to own to his mistakes. "To the truly great mind, conscious, no whit the less of store of learning, becometh well even the straight confession of an honest fault; and more especially in this serves it that it is handed down for the benefit of posterity, that none may fall into the same snare wherein he of old was trapped."

Let us now take his "Medicine" in what detail space

permit. The following account is copied verbatim from Neuburgher:—

Anatomy and Physiology are only taken so far into account by Celsus as practical medical purposes demanded. Osteology is moderately well represented; the description of the skull in particular rests upon careful investigation. The individual muscles, on the other hand, are not described. Venæ frequently signify vessels in general, in other places Celsus distinguishes between air-conducting arteries and blood-conducting venæ. The termination "nervi" signifies now nerves, now muscles, now tendons.

Book I. is devoted to Diet and Hygiene in health and disease, and is based partly upon Hippocratic, partly upon methodic views, but gives evidence of the author's originality and of modification to suit the conditions of Roman life.

General Aetiology, Symptomatology, and Prognosis occupy the first eight chapters of the second book, mainly derived from Hippocrates, as Celsus himself says in his introduction. Like the former, he describes the influence of seasons, of weather, of age, and of constitution upon the origin of the diseases, and records a number of observations upon prognostic signs which remain true for all time. Of great interest is the second chapter, which sets out the signs of impending illness, and the sixth gives those of approaching death as well as the enumeration of symptoms of prognostic importance in individual complaints such as consumption, dropsy, hepatic abscess, etc.

The descriptions which most attract attention are those of abnormalities of the urine, the symptoms of stone in the bladder, of prodromata of insanity, of the last stages of consumption—all these come from a master-hand, and are readable even to-day.

The succeeding chapters of this book contain General Therapeutics, and in them Celsus, with keen insight, gives credit both to the Hippocratists and to the school of Asclepiades. Thus, in discussing the indications for blood-letting he refers to a whole series of objections of the older physicians, himself finding in excessive bodily weakness the only contra-indication; his directions upon the performance of venesection and his warnings against the errors of technique which may occur are excellent. In addition, he recommends cupping, dry and wet, purgatives, emetics, and finally the favourite methods of contemporary medicine, massage, active and passive movements, fasting and diaphoretics. In these sections the technique of as well as the indications for the above procedures are described with great care.

Special Pathology and Therapeutics are described in Books III. and IV. Celsus opposes the current division of diseases into acute and chronic, distinguishing them rather as general and local. He rejects the theory of critical days, and, unlike the methodists, individualises carefully, the condition of the pulse in particular giving him a measure of the physical condition and a clue to treatment, but he refers to the mistakes that may occur in its examination. Hygienic and dietetic measures are recommended also for the individual symptoms of fever, such as headache and inflammation. (Book IV., chapter 10, contains the famous symptomatological definition of inflammation: "Notæ vero inflammationes sunt quatuor, rubor et tumor, cum calore et dolore.") Of the greatest importance is the 18th chapter of Book III., in which the therapeutics of mental disturbances are discussed, Celsus not only giving indications of the methods commonly in use, but laying chief stress upon psychical treatment.

The masterly description of Surgery takes up the whole of Books VII. and VIII., in addition to which many surgical observations are scattered throughout the remaining books. Celsus mainly follows Hippocrates, but his work, including as it does all the most striking advances of the subsequent period of over four hundred years, forms an invaluable source of knowledge of the achievements of the Alexandrian school in particular.

Celsus discusses injuries and their characteristic symptoms, the attitude of injured limbs, the different natures of wound-secretions, arrest of hæmorrhage and treatment of wounds, treatment of fractures, dislocations, caries, and necrosis of bones, fistula, fissure, ulcers, and tumours, herniæ, etc. More or less minute descriptions are given of trephining, resections, amputations, radical operations for umbilical hernia, operation for phimosis, urethrotomy, etc. Arrest of hæmorrhage is effected by means of tamponage and compression or by ligature of vessels. Ligature, not mentioned in the Hippocratic writings, is thus spoken of: "Venæ quæ sanguinem fundunt apprehendendæ, cicaque id quot ictum est, duobus locis deligandæ" ("the blood vessels seized and each one, as it is cut, tied off in two places"). As a dressing for wounds a sponge wrung out of vinegar, wine or water was used and fixed by means of a linen bandage. Suture was employed to promote union of wounds. In penetrating abdominal wounds and intestinal injuries, Celsus recommends suture of the intestines, and in suture of the abdominal wall recommends inclusion of the peritoneum. As regards new growths, Celsus was familiar with the recurrence of carcinoma, even after removal with the knife.

As by Hippocrates, strangulated hernia is not clearly described, nor is there any lucid account of radical operation for hernia. On the other hand the Roman author describes trusses, and translucence as a sign of hydrocele. Amputation was only undertaken for gangrene, and that at the line of demarcation. Notable contributions are the descriptions of lateral lithotomy and plastic operations. Diseases of the mouth, nose and ear are carefully described from the standpoint of contemporary knowledge.

In these branches there are noteworthy descriptions of aphthous ulceration and croupous conditions, of operative treatment of cancer of the lip, of tonsillar hypertrophy and nasal polypus, whilst Celsus also gives an excellent account ozaena, and lays stress upon the spread of inflammatory affections of the ear to the brain. In the technique of otological treatment instillations and syringing with the "Clyster oricularis" played a prominent part; foreign bodies were removed by means of a probe tipped with wool and saturated with turpentine, to spring and sternutatories, i.e., snuffs.

In Dentistry it is of interest to note that, to facilitate extraction, the gum was loosened all round the tooth; in the case of every hollow tooth, in order to obviate breaking, the cavity was previously filled with unravelled linen and lead. Loose teeth were bound with gold thread to their neighbours, and, under certain conditions, an attempt at stopping was even made.

The following points may be mentioned in reference to Obstetrics and Gynæcology. Celsus recognised the difference between the male and female pubic arch, was familiar with the hymen and vicarious menstruation, recommends rectal examination, catheterisation, and the cross-bed position in obstetric operations.

Throughout Celsus insists upon the dangers of the puerperal state, and the necessity of practice in obstetric manipulations.

In Ophthalmology a good description is given of the operation for cataract, the first extant in literature; the procedure laid down, resting on false anatomical premises, remained in general use until the eighteenth century (depression).

Celsus himself, being a patrician, was a scientific amateur, not a fee-taking practitioner. His writings, nevertheless, afford clear proof that he did practise medicine for the love of it—doubtless amongst his own family and amongst the clients who thronged the waiting halls of the great Roman houses. His "Medicine" was primarily meant for scientific amateurs like himself.

Pliny is the next on our list. Like Varro, C. Plinius Secundus was a man of action as well as a scholar. Pliny the elder he is called to distinguish him from his nephew and adopted son, Pliny the younger, also a scholar and a man of letters. The elder Pliny was one of the most laborious students that ever lived, but by no means wisely discriminating. "All was grist that came to his mill," and it is this omnivorous quality in him which makes him so interesting to later times. Pliny, a patrician of the patricians, a Roman of the Romans, had little respect for Greek physicians, and in his world-famous "Natural History" the mass of medical statements (chiefly about drugs, their properties and uses) includes equally the scientific medicine of his day with the crudest and most superstitious domestic medicine. From his pages can be pieced together a picture of "Folk-medicine" in the first century, A.D., a "Folk-medicine" which spread over the whole of Europe, and survives even at the present day.

In A.D. '79, being in his 56th year, Pliny was stationed at Misenum in command of the Roman fleet. From afar he saw the strange portents which ushered in the historic eruption of Vesuvius. Devoured by burning scientific curiosity, he hurried aboard his flagship, and set sail for the scene of the eruption. On his way he met small craft from Stabiae, carrying fugitives, who told him lucid tales of the miseries and terrors of the eruption. Curiosity gave place to horror-struck compassion. Eager to help he hurried on, landed at Stabiae, and, fighting always a brave but

hopeless fight, thinking only to save others, he died nobly at his post of duty.

Dioscurides was the first and greatest master in Pharmacy. He was to pharmacy as Galen to medicine. For centuries, indeed almost to the nineteenth century, both were living oracles to students of science. Their word was law. As an illustration of this, Wootton, in "Chronicles of Pharmacy," quotes how in Dr. Monk's Roll of the College of Physicians, mention is made of a Dr. Geynes, who was admitted to the Fellowship of the College in 1560, "but not until he had signed a recantation of his error in having impugned the infallibility of Galen." These are the words of his recantation: "Ego, Johannes Geynes, fateor Galenum, in üs, quæ, proposui contra eum, non errasse" (I, John Geynes, confess that Galen made no mistake in those things wherein I contradicted him). In Eastern Medicine Dioscurides is still an oracle of pharmacy. Pedanios Dioscurides was, in Nero's time (A.D. 54-68), serving as surgeon (or possibly as "Compounder") in the Roman Army. With the legions he travelled through Greece, Italy, and Asia Minor, studying always the medicinal herbs peculiar to each country. Unlike Pliny, he shows genuine scientific discrimination. Neuburgher says "Dioscurides . . . attained in a wonderful measure the object at which he aimed. This was the simplification of the therapeutic art and the limitation of polypharmacy within reasonable bounds by an exact terminology, by accurate description of remedies in all three kingdoms, and by reliable data upon their preparation, preservation, testing, employment, dosage, and action. . . . The excellence of his botanical descriptions is shown by the fact that, notwithstanding the inherent difficulty, most of the plants depicted can be recognised at the present day." His treatise, "Peri Ules Iatrikes" ("on healing matter" or "materia medica"), is in six volumes, dedicated to a physician of his day. He describes some six hundred plants, limiting himself to those with known or supposed healing virtues. He mentions besides the therapeutic properties of many animal substances. His works contain the first reference to the chemical preparation of metals (only used externally), for instance (Wootton) Argentum vivum, cinnabar, verdigris, the calces of lead and antimony, flowers of brass, rust of iron, litharge, phompholix, several earths, sal ammoniac, nitre. He also gave excellent descriptions of myrrh, bdellium, laudanum, asafœtida, gum ammoniacum, opium, and squill. Many "new treatments" and rediscoveries" are found in Dioscurides' pages. For instance, the use of wool fat as an ointment, the use of castor oil (externally), male fern for tape-worms, elmbark for eruptions, horehound for phthisis, and aloes for ulcers. He describes many chemical processes very intelligently, and was the first to indicate means of discovering the adulterations of drugs (Wootton). Though free from superstition as compared with the other "prescriptionists" of his day (all immeasurably inferior to him), he is yet guilty of prescriptions curious and disgusting to modern ideas. Thus, "roasted grasshoppers for bladder disorders; the liver of an ass for epilepsy; seven bugs enclosed in the skin of a bean to be taken in intermittent fever; and a spider applied to the temples for headache." . . . "Dioscurides was a native of Anazarba, in Cilicia, where both written and spoken Greek were proverbially provincial." It is an interesting fact that our word "Solecism" is believed to have been derived from the town of Soloe in that district (Wootton in "Chronicles of Pharmacy").

I cannot conclude this article without mention of Aulus Gellius. Gellius was a philosopher and scholar, who lived about A.D. 130. He believed very rightly that a certain amount of medical knowledge was necessary for the laity, and he published "Memoranda" for popular use on what he considered useful and necessary medical information. In his "Attic Nights," so-called because written near Athens during the long winter nights, he has the following (requoted from a useful "Popular Health" book, lately published, "Feeding and Care of Baby"), on the duty of suckling:—

A Roman on Motherhood.

Once when I was with the philosopher Favorinus word was brought to him that the wife of one of his disciples had just given birth to a son.

"Let us go," said he, "to inquire after the mother and to congratulate the father." The latter was a noble of senatorial rank . . . .

Favorinus having embraced and congratulated the father sat down and inquired how his wife had come through the ordeal. And when he heard that the young mother, overcome with fatigue, was now sleeping, he began to speak more freely.

"Of course," said he, "She will suckle the child herself." And when the girl's mother said her daughter must be spared and nurses obtained in order that the heavy strain of nursing the child should not be added to what she had already gone through, "I beg of you, dear lady," said he, "allow her to be a whole mother to her child. Is it not against Nature, and being only half a mother, to give birth to a child, and then at once to send him away—to have nourished with her own blood and in her own body a something that she had never seen, and then to refuse it her own milk now that she sees it living, a human being, demanding a mother's care? Or are you one of those who think that Nature gave a woman breasts, not that she might feed her children, but as pretty little hillocks to give her bust a pleasing contour? Many, indeed, of our present-day ladies do try to dry up and repress that sacred fount of the body, the nourisher of the human race, even at the risk they run from turning back and corrupting their milk, lest it should take off the charm of their beauty.

"But it makes no difference—for so they say—so long as the child is nourished and lives, with whose milk it is done.

"Does he who says this, since he is so dull in understanding Nature, think it is also of no consequence in whose womb and from whose blood the child is formed and fashioned? For is there not now in the breasts the same blood which was before in the womb? And is not the wisdom of Nature to be seen in this, that as soon as the blood has done its work of forming the body down below, and the time of birth has come, it betakes itself to the upper part of the body, and is ready to cherish the spark of life and light by furnishing to the new-born babe his known and accustomed food?

"And so it is not an idle belief that, just as the strength and character of the seed have their influence in determining the likeness of the body and mind, so do the nature and properties of the milk do their part in effecting the same results. And this has been noticed not in man alone: in the case of timber and fruit trees, too, the qualities of the water and soil from which they draw their nourishment have more influence in stunting or augmenting their growth than those of the seed which is sown, and often you may see a vigorous and healthy tree when transplanted into another place perish owing to the poverty of the soil.

"Is it, then, a reasonable thing to corrupt the fine qualities of the new-born man, well endowed as to both body and mind so far as parentage is concerned, with the unsuitable nourishment of degenerate and foreign milk?

". . . And besides these considerations, who can afford to ignore or belittle the fact that those who desert their offspring and send them away from themselves, and make them over to others to nurse, cut, or at least loosen and weaken, that chain and connection of mind and affection by which Nature attaches children to their parents!"

These noble, enlightened, and wonderfully modern reflections of a philosopher, dead and forgotten well nigh two thousand years, may fittingly close the present article.

THE DR. MAYNARD PAIN MEMORIAL FUND.

The subscribers to this fund are hereby notified that the total amount received, including interest, was £520/6/11. This was handed over to the trustees, and the following acknowledgment has been received:—

To Doctors Rennie and Cosh,
Sydney.

Dear Sirs,—I have to acknowledge the sum of five hundren and twenty pounds, six shillings and eleven pence (£520/6/11), which money has been placed in my hands to be held in trust by Dr. Docker and myself for the education of the children of the late Dr. E. Maynard Pain.

I am, yours, etc.,
THOMAS S. HOLT.

"Amalfi," Appian Way, Burwood,
July 16, 1914.

THE HOUSE OF THE SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The building is situated on the west side of Hindmarsh Square, close to Grenfell Street, which is, after King William Street, the most important street of Adelaide. The land has a frontage of forty (40) feet to the Square, and a depth of one hundred (100) feet. The rear frontage faces Hyde Street. On the north side is a right-of-way, while to the south the erection of the new building of "The Young Women's Christian Association" is proceeding.

The building, which was erected in 1902, is constructed throughout of red brick, with grey cement facings. It consists of a basement occupying the whole area and of two floors. On the upper floor are two large and three small rooms, all of which have been let at good rentals. The lavatory accommodation is also situated on this floor. The ground floor consists of the Lister Hall and three rooms. One of these has been let to G. C. Wood and Co., surgical instrument makers, etc. The two rooms still unlet will ultimately be used by the Branch as an office and a library.

The Lister Hall measures 40½ feet by 31½ feet. The design of the walls and ceiling gives it a dignified appearance. Solid blackwood chairs, with an expanded right arm for writing purposes, have been provided, and handsome blackwood bookcases have been placed in bays along the walls.

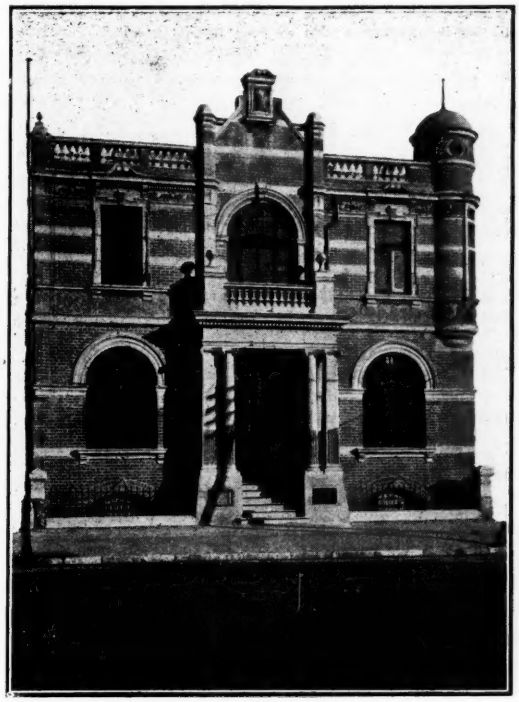
At the entrance to the Hall is a small ante-room, and to the rear is a large gallery and also two small sitting-rooms for male and female patients at the clinical meetings of the Branch.

Three rooms in the front of the basement have been let. The central portion has been allotted to the caretaker, the remainder is unlet.

The building has been painted, decorated, and papered throughout, and electric light installed in place of gas.

From this description of the building it is obvious that as the needs of the Branch demand it, there is ample room to satisfy them.

The rent derived from the rooms already let amounts to over £400 per annum.

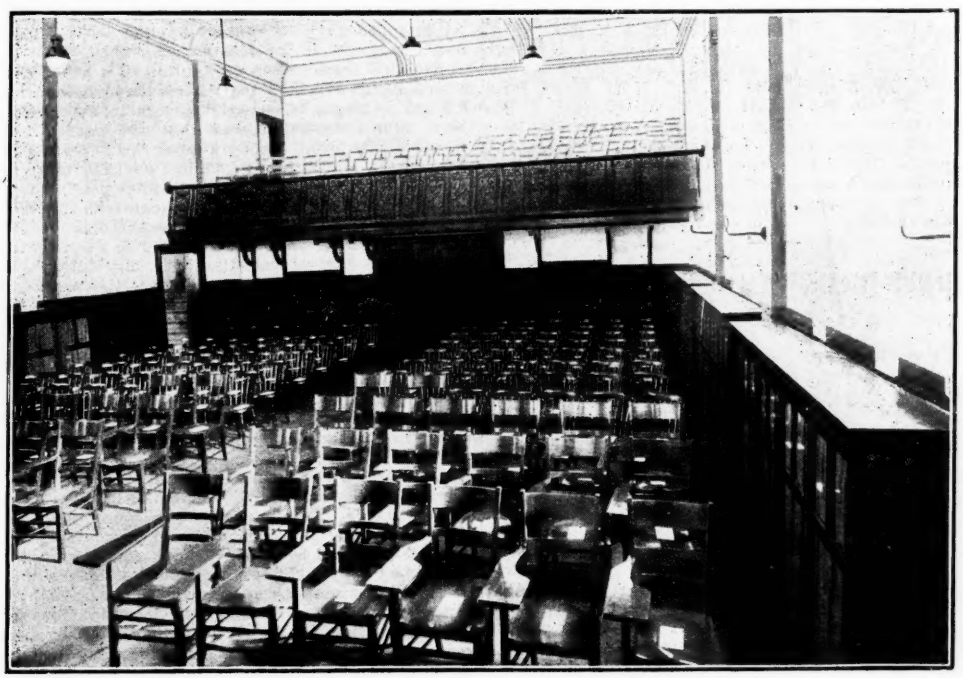


The British Medical Hall Company, Ltd., of which members of the Branch only may be shareholders, purchased the property for £5500.

The capital of the Company is £7000, composed of 700 shares of £10 each.

Shares to the value of £4,350 have been taken up.

The Council of the Branch hopes that many members



who have not yet applied for shares will do so, in order that the mortgage of £2200 may be paid off.

List of Ordinary Shareholders.

Dr. A. M. Cudmore (5), Dr. B. Smeaton (5), Dr. Steele Scott (1), Dr. R. E. Harrold (3), Dr. J. C. Verco (20), Dr. C. Hamilton (5), Dr. E. A. H. Russell (1), Dr. H. H. E. Russell (5), Dr. W. T. Hayward (5), Dr. C. Magarey (5), Dr. Cleland (5), Dr. A. M. Morgan (1), Dr. W. Robertson (2), Dr. Malcolm Scott (1), Dr. Edgar Brown (1), Dr. H. S. Newland (5), Dr. H. Rischbieth, (2), Dr. H. Swift (2), Dr. E. L. Borthwick (2), Dr. H. A. Powell (20), Dr. M. von Lukowitz (2), Dr. E. V. Fooks (1), Dr. T. K. Hamilton (5), Dr. F. S. Hone (5), Dr. C. E. Todd (2), Dr. H. H. Wigg (2), Dr. J. Corbin (1), Dr. A. V. Benson (2), Dr. R. H. Marten (5), Dr. C. T. Cooper (2), Dr. B. Poulton (5), Dr. M. Birks (1), Dr. W. A. Verco (10), Prof. E. C. Stirling (2), Dr. J. E. Good (1). Total, 142 shares.

These shares have been most generously presented to, and are held in trust for, the South Australian Branch.

List of Preference Shareholders.

Dr. A. Goode (5), Dr. H. F. Shorney (5), Dr. H. H. E. Russell (15), Dr. E. A. H. Russell (5), Dr. J. Drummond (1), Dr. E. W. Morris (5), Dr. D. W. A. Cowan (10), Dr. F. H. Borthwick (3), Dr. E. Glynn (3), Dr. M. Birks (10), Dr. S. Blackney (2), Dr. A. C. Magarey (1), Dr. B. Smeaton (5), Dr. W. J. Gregerson (1), Dr. E. A. Brummitt (2), Dr. Violet Plummer (2), Dr. B. Poulton (5), Dr. H. Gilbert (1), Dr. R. Brummitt (2), Dr. J. I. Sangster, jun. (1), Dr. S. R. Burston (1), Dr. W. A. James (1), Dr. R. D. Brummitt (1), Dr. Lowther Clarke (2), Dr. Phoebe Chapple (1), Dr. C. Corbin (1), Dr. H. A. Sweetapple (5), Dr. Parkhorne (5), Dr. Mal. Scott (4), Dr. R. Magarey (3), Dr. J. A. Bonnin (5), Dr. T. K. Hamilton (5), Dr. F. S. Hone (5), Dr. M. D. Nesbitt (1), Dr. Otto Smith (2), Dr. S. M. Verco (2), Dr. W. A. Verco (20), Dr. F. Douglas (1), Dr. Edgar Brown (9), Dr. W. R. C. Mainwaring (2), Dr. A. N. Macquarie (2), Dr. C. V. Wells (2), Dr. A. A. Lendon (5), Dr. W. J. Gething (3), Dr. P. Bollen (5), Dr. A. H. Bennett (5), Dr. R. H. Marten (20), Dr. Helen Mayo (2), Dr. A. V. Benson (3), Dr. S. L. Dawkins (5), Dr. H. S. Newland (5), Dr. John Corbin (4), Dr. G. C. Hayward (5), Dr. C. de Crespigny (2), Dr. L. W. Hayward (1), Dr. A. F. A. Lynch (2), Dr. J. W. Browne (1), Dr. J. E. Good (4), Dr. A. A. Hamilton (5), Dr. J. A. G. Hamilton (5), Dr. W. T. Hayward (5), Dr. Angas Johnson (2), Dr. A. F. Stokes (1), Dr. Steele Scott (3), Dr. A. H. Gault (3), Dr. T. G. Wilson (5), Dr. H. M. Evans (5), Dr. J. B. Gunson (5), Dr. A. E. Wigg (3), Dr. H. Swift (5), Dr. Hampden Carr (1), Dr. W. H. Harbison (2), Dr. A. R. Clayton (5), Dr. T. Borthwick (2). Total, 293.

Preference Shares are entitled to a non-cumulative dividend at the rate of 5 per cent. per annum.

British Medical Association News.

SCIENTIFIC.

A meeting of the Eye and Ear Section of the Victorian Branch was held at the Eye and Ear Hospital, Melbourne, on June 23rd, the President, Dr. Edward Ryan, in the chair.

Dr. Percy Webster drew attention to the Midwives Bill, now being drafted, and suggested that members collect all cases which have come under their notice, and obtain particulars, including the pathological details, of these cases, in regard to forming a definite opinion as to future legislation regarding ophthalmia neonatorum.

Dr. Edward Ryan showed (1) a case of chronic glaucoma in one eye in a patient whose other eye had been excised for absolute glaucoma. The patient was operated upon by trephining. The vision rapidly diminished. He was again trephined at a later date, but the increased tension persisted, and the vision gradually diminished, to be entirely lost within 48 hours. The anterior chamber was shallow, and after the second operation it was hard, showing evidence of raised tension in the vitreous. He thought that the lens might possibly be responsible for the increase of tension; he removed the lens. The eye was painful. The tension had remained as high as it had been before. The case was a very unusual one. He thought that the vitreous should be penetrated, and some allowed to escape.

2. A case of double pterygium, on the large side. The patient had been operated upon 18 years ago. Recurrence followed 12 years ago; he was operated upon by another practitioner, and the condition again recurred. Dr. Ryan operated for the third time. One eye was cured; the pterygium in the other returned. He asked for some suggestion as to method of treatment.

Dr. Percy Webster stated that in a case of chronic glaucoma he had adopted Odilla Maher's method with good effect. In this case the field was very small, and yet after operation the vision remained good—an unusual experience. He raised the question as to the conditions of the arteries in that eye? Many glaucoma patients had a number of sclerotic arteries. The effect of operation might be to diminish the calibre of the artery, where the artery was subject to arteritis, the effect could be to produce a thrombosis in the artery. The alteration of tension might slow the current of blood, so that the blood would clot in the artery.

Dr. Ryan said that he had never seen this, though he admitted its possibility. He pointed out that the effect was delayed by prolonged pressure on the expansion of the nerve. At any rate it was a point to be cleared up whether it was wise to operate where there was a small field and lowered vision. He sometimes varied the operation; he left the iris in the wound till next morning, and in one case he left it a week and then brought down the flap of the conjunctive and made it unite. The eye had been washed and dressed daily; no pain was noticeable. It only showed what could be done after leaving the iris exposed for 24 hours. Infection of the wound need not occur.

Dr. Percy Webster exhibited a case of spring catarrh This was an extreme case. The growth was from near the centre of the pupil. There was a suggestion made that it might be tubercular. Darier was of opinion that conditions of the kind have some tubercular element about them. Nothing seemed to do the case exhibited any good except time. After the suggestions given to him by the President, he intended to have redium applied to it. The effect of one case treated by radium was that after the fourth application there was a diminution of a number of papillæ. Dr. Webster expected that there would be contraction, but he had not seen it recently enough to express an opinion. The interesting thing was that the cornea was so extensively involved, and yet after six years there was nothing to show that anything was the matter with the cornea except one semilunar white patch. Dr. Schalit asked whether the term spring catarrh was not one employed where one could not exactly diagnose the pathological condition. Dr. Ryan replied in the negative. There were three clinical varieties of spring catarrh, one where the conjunction alone was affected, the second where the cornea alone was affected, and the third where both cornea and conjunctive were affected. Dr. Ryan said that by cutting off the beta and gamma rays of radium which penetrated below the surface, the action of radium could be allowed to affect the surface only. Dr. Lawrence stated that he applied radium by inverting the lid, and left the radium for about an hour. Dr. J. W. Barrett and Mr. Leonard Mitchell exhibited a case of tremor of the eye. There was a slight amount of refractive error. The patient complained of headaches. Latterly a tremor was discovered accidentally, when the lids were being examined. It was equal in the two eyes. If both were uncovered at the same time the eyes oscillated rapidly for two seconds, and then they turned inwards. They had not seen such a condition before. The physical condition of the girl was not good; she was much run down. They thought it was an over-supply of nervous stimulation; but they could offer no explanation for it. It could not be the effect of fear. It possibly was allied to the action of the internal pterygoid in the movement of the upper lid, associated as in

the action of chewing. It might also be due to the fact of the two nerves coming off from the same nerve trunk. She could not produce the tremor at will. It could be elicited in either eye.

Dr. John Murphy exhibited (1) a case of lingual goitre, a case of tumour at the base of the tongue. The patient was a girl aged 13; 18 months ago a slight change was noticed in her voice. Twelve months ago there was a swelling extending from the base of the tongue to the submaxillary region. She snored at night-time, but otherwise suffered no ill-effects. At the base of the tongue and under the epiglottis the tumour was hard and firm. Dr. Murphy expressed as doubtful whether it was sublingual goitre or hydatid. If pain were present it might be hydatid with a calcareous wall. There was a point standing up in it which was peculiar. Dr. Murphy had put her on thyroid and iodide without any effect. There was no syphilitic history. He proposed to operate from the submaxillary region, explore with a needle, and treat the condition according to what was found.

Dr. Webster thought that possibly it was a cyst of hyoid bone. He instanced a case where he had cut down and found it a hydatid. The case was not gone far enough to pronounce a definite opinion, but it was proposed to follow up the case.

Dr. Murphy also showed a man, aged 28, who had a radical mastoid operation five weeks previously. He had a polypus filling the meatus, as well as middle ear trouble. He gave a history of headaches and giddiness. The wound had now healed up; there was no return of headache| His third case was that of a girl, aged 16, with congenitally syphilitic. Six years ago she had an ulcerated throat; it continued to give trouble for two years. There was now an absence of the uvula and a part of the soft palate. There was a web extending from the epiglottis to the posterior wall of the larynx. The right vocal cord was partly obscured, but it was thin and mobile. Her voice was altered, being nasal, due to absence of soft palate. The Wassermann test gave a positive reaction. The girl suffered no ill effect whatever, and had no difficulty in swallowing. One of the vocal cords could be seen through the hole. All action of disease was now quiescent.

Dr. H. Barry Thomson showed a case of tumour of the larynx. The patient, aged 55, consulted a doctor for horsenes ssix months ago. He was told it would pass off. Hoarseness continued, no pain was felt, and there was no loss of weight. The left vocal cord was infiltrated from about junction of anterior and middle third of the cord back to the interarytenoid region. The arytenoid joint was fairly movable, which the speaker regarded as a hopeful sign. There was no history of syphilis, and all family healthy. von Pirquet's test proved negative. The condition looked like malignant disease, but the mobility of the cord was against this. Dr. Thomson proposed to wait for the result of the Wasserman test, and then if negative to, excise a piece for microscopical examination. If malignant he would remove the cord by the external method, and at the same time have radium applied. He had put this patient on iodides. There was very little ulceration, and the surface was fairly smooth. He sought the opinion of those present. Dr. Murphy said he was inclined to exclude malignancy owing to the mobility of the cord. The diagnosis should be made by microscopical examination. Dr. Thomson, in answer to questions, said that he had given iodides and mercury with very little benefit. He spoke to Dr. Herman Lawrence about radium treatment, and he said that it was possible to use it by placing it in a tube in the throat and leaving it there overnight, and then withdrawing it. Dr. Thomson would insert the radium at the same time as he performed the operation, and would then leave it overnight in the larynx. Dr. Thomson thought that radium might be applied to assist in completing and clearing up any remains of disease after operation. Dr. Ryan thought that one would be justified in trying radium at the same time. Dr. Schalit pointed out that in the last issue of the "British Medical Journal" a medical man stated that he did not believe in operating and applying radium at the same time,

A meeting of the Queensland Branch was held at the B.M.A. Building, Adelaide Street, Brisbane, on Friday, July 3rd, Dr. Alex. Marks, the president, in the chair.

Dr. Halford showed a case of severe crushing of four fingers. He applied a dressing and moistened it once or twice a day with alcohol or methylated spirits. The dressing was not removed until after healing had taken place. The result was most satisfactory, the patient having been able to return to work within five weeks of the injury. He had suffered very little during the treatment. Dr. Halford recommended this method of treatment for similar cases and for burns.

Dr. J. B. McLean showed a case of double extra-uterine gestation. The patient had had some abdominal pain and slight hæmorhage for about a week before admission into hospital. The os uteri was closed ,the cervix tender, and the left fornix fuller than the right. A few days later she was attacked by a sudden severe pain, and became blanched. On opening the peritoneal cavity, Dr. McLean found a ruptured left tube, with free blood in the peritoneal cavity. The tube was removed. On examining the right tube, which was embedded behind the uterus, he found that a second turbal pregnancy was present, which had ruptured. He removed this tube also. He expressed the opinion that the left tube had ruptured early in the pregnancy, seeing that no fresh hæmorrhage was taking place at the time of the operation. The right side rupture took place immediately before the operation. He regarded this as a very rare condition.

Dr. Halford stated that he had seen a similar case. He drew attention to the extreme tenderness, mentioned by Dr. McLean, of the fornices, which he regarded as an almost infallible sign of extravasated blood in the peritoneum, if acute inflammatory conditions could be excluded. Dr. D. A. Cameron was of the opinion that the tenderness was quite as great in twisted ovarian tumours, and spoke of several cases of this character in which the diagnosis of ruptured ectopic gestation had been made. Dr. Marks hoped that further reports of interesting cases might be forthcoming from the Brisbane Hospital.

Dr. Butler showed a case of paralysis of the serratus magnus, and the supra- and intra-spinatus muscles, with very remarkable winging of the scapula and hypertrophy of the compensatory muscles, and especially of the deltoid and teres major. A further peculiar condition noted in this case was a marked fullness and pulsation below the left clavicle. It simulated an aneurysm, but was probably an aberrant artery.

Dr. Brockway read a paper for Dr. A. Stewart on the treatment of cough. After dealing with the various forms of cough, including that met with in pleurisy, pneumonia, bronchitis, phthisis, and aneurysm, he passed on to the consideration of the treatment of cough in the dry stages of acute and chronic bronchitis, in the initial stage of asthma and in pleurisy. He suggested that the dry bronchial surface must be so stimulated as to produce a liquid secretion, which is best done by giving iodides combined with an akaline salt. He did not recommend expectorants, but in bad cases of asthma, where the lungs are mucuslogged, apomorphine, ipecacuanha, or tartar emetic, given in emetic doses, produce very striking results. Strychnine may be given with apormorphine to counteract depression effect of the latter. When cough is excessive and is producing irritation, opium, morphine, or heroin should be employed. He advocated giving these drugs in the form of the compound tincture of camphor, the compound tincture of chloroform and morphine, together with hydrobromic acid, or in the case of heroin, in the form of a compound mixture of the same kind, but without any acid. Sedatives should, however, be used with great caution, and changed frequently. In phthisis phenazonum in doses of up to 5 grains might do good. It could be combined with iodide of sodium and the tincture of chloroform and morphine. When the cough is chronic and mild, excellent results were obtainable by giving creasote in doses starting from 5 minims and increasing up to 12 or 15, either in milk, or in gelatine capsules. In cases of chronic bron-

chitis, with wheezing, 10 grains of iodide of sodium, and 20 minims of carbonate of creasote did good.

When the cough is due to enlarged uvula, adenoids, or tonsils, the local condition should be attended to. Large nasal polypi should be removed, but small ones left alone. Dr. Stewart stated that Francis's method of cauterizing the nasal septum for asthma has been proved to be useless. He advocated Hare's dietetic treatment for fat people with asthma.

Dr. Turner regarded Dr. Stewart's classification into useful and useless cough a very practical one. He endorsed all what was said about creasote and the iodides. He usually prescribed creasote with morphine. He recommended codeia in doses of ¼ grain as a sedative for chronic cough in old people. Dr. Halford stated that a patient of his had classified coughs into those coming from down below and thos from up above. There was some pathological justification for this. He had formed an adverse opinion to the use of apomorphine on account of the collapse which followed its use. He found aspirin in suspension, not in tablets, useful. Dr. E. Calpin had recently given one-tenth of a grain of apomorphine to an asthmatic with very unsatisfactory results. The collapse was very severe, and after the patient recovered the asthma was as bad as ever. Dr. Webb referred to reflex cough in children, which he attributed to the presence of pediculi capitis. The cough disappeared after the pediculi were removed. Dr. D. A. Cameron stated that he found apomorphine in small doses a most useful remedy in many cases, and deprecated the condemnation meted out to it by some of the speakers.. Dr. Lockhart Gibson, speaking of reflex cough, considered that cerumen was at times the cause. This should always be kept in mind. He spoke of the efficacy of iodide of potassium in asthma. Twenty grains often kept the asthma in check, when from 5 to 10 grains produced iodism. Dr. McKenna pointed out that no mention had been made of inhalations, which were at times almost indispensable. In asthma certain inhalations given with the aid of the atomizer often brought relief when cocaine and atropine failed. Dr. McLean had had favourable experience of potassium iodide in large doses for asthma. He had found cocaine the best sedative for cough. Dr. Butler did not agree with Dr. Halford in regard to the use of apomorphine. He considered that both large and small doses were very valuable in suitable cases. He had never heard of a patient dying of the result of the injection of apomorphine, although at times they looked extremely ill after it. When a sedative had previously been administered, apomorphine seldom caused emesis. Dr. Carvosso considered that in nine cases out of ten ten grains of iodide of potassium produced excellent results in asthma. It failed to act satisfactorily, however, in chronic cases. Dr. Brockway stated that his personal experience of spasmatic asthma led him to regard aspirin in 10-grain doses as the best form of treatment. The cauterization of the septum and large doses of iodide had failed to bring relief. He gave aspirin in doses of 10 to 15 grains at bedtime, when an attack was threatening, and found that this kept it in check. The drug must be given in powder form.

MEDICO-POLITICAL.

At the meeting of the Queensland Branch, held on July 3, 1914, Dr. H. C. Shaw, in moving

> "That a referendum be taken of members of the Branch as to the advisability of admitting the A.N.A., Queensland, as a Friendly Society, recognised by the Branch under the Model Lodge Agreement,"

pointed out that since the Federal Committee had refused to discuss this matter, it was necessary to approach every member by means of a referendum, in order to obtain the opinions of members living in the country as well as those in or near the city. He asked for an expression of opinion from someone at headquarters, as a guidance for members. He had been informed that the A.N.A. in Queensland was willing to abide by the Model Lodge Agreement, with a wage limit. He disagreed with the leading article published in the "Australian Medical Gazette," and maintained that the A.N.A. would certainly not sweat the profession. It did not matter whether the society had been a political organisation or a national society in the past; the question was what is was prepared to do in the future. He strongly urged the recognition of the A.N.A., and regarded it as a better policy to keep men within the Association who would accept service under any conditions, than to refuse to admit them. Dr. Erpie Dodds seconded the motion. Some months ago, a special sub-committee was appointed to consider the question of the Australian Natives' Association on account of some trouble in connection with the Downs' Local Association. It was then decided that the rule of the Branch, prohibiting recognition of the A.N.A., must be enforced, pending the acceptation of the Model Lodge Agreement with a wage limit. The Model Lodge Agreement had now been adopted, and it was advisable that the Branch should reconsider the position. The members of the whole Branch should decide whether the A.N.A. should be recognised as a Friendly Society or not. If it were admitted, the position of the Branch would be strengthened, and this might also assist the Victorian Branch. He urged that if they approved of a referendum, they would have to abide by the result of it. Dr. Brockway adduced evidence from the proceedings of the Federal Council of the A.N.A., as reported in the "Brisbane Courier" of June 3 and 4 that this was a huge national association, for the social, political, and domestic advantage of every Australian born. He cited some of the "planks" of the Association. These indicated that the A.N.A. had distinct party political aspirations. One of the reasons why he did not approve of the recognition of this association by the British Medical Association was that it was unlike the other Societies which had been admitted as Friendly Societies, such as the Hibernians, Protestant Alliance, Rechabites, Oddfellows, etc., in that admission to the latter was dependent on some special religious belief, ritual or other circumstances, and therefore, these societies could not hold more than a certain proportion of the united strength of such societies. The very fact of there being a number of societies with various, and in some cases antagonistic views, would result in a weakness of combination when such was desired. As time went on, the A.N.A. would so gain in numerical strength that those outside the Association would form an insignificant minority. When that time came the A.N.A. would be able to dictate terms. The speaker did not think that a question of this kind should be submitted to the members of the Branch in the form of a referendum. He held the opinion that voting in this manner on political questions was frequently unsatisfactory, because men did not fully grasp the situation, and recorded a vote on insufficient information. Many of the members might not even be aware that the New South Wales Branch had decided against the inclusion of the A.N.A., and that the New South Wales Friendly Societies had refused to acknowledge the A.N.A. as a medical benefit society. Other Associations did not find it necessary to seek the aid of medical benefits to bolster up their membership. He pleaded earnestly with the members not to give a blind allegiance to any society which might prosper at the expense of an already overburdened profession. Dr. E. Culpin considered that it was highly important before a referendum were taken, that the arguments both for and against the recognition of the A.N.A. should be given, in order that the members might be in a position to know what they were voting about. Dr. Turner supported the motion, and would vote in favour of the recognition of the A.N.A. He did not consider it a purely political body, and as it was prepared to accept the wage limit and the other terms of the British Medical Association, he could not see why it should not be admitted. Dr. Halford inquired whether the A.N.A. had approached the British Medical Association with the view of being admitted as a Friendly Society. He disapproved of a referendum being taken before such an application had been received. The first step should be taken by the other body. Dr. Alex Marks, the President, stated that some difficulty had arisen in Toowoomba. Men holding the A.N.A. Lodge posts were met by members of the Branch, against the rules of the Branch. The matter had been deferred until the question of a wage limit had been settled. Dr. Lockhart Gibson did not think that the Branch would suffer at the hands of the Australian Natives' Association. This body was now pre-

pared to accept the common form of agreement with a wage limit, and should therefore be admitted. Victoria and other States had recognised the A.N.A. as a Friendly Society, and it would be strange if Queensland refused. The A.N.A. was a society open to all Australian born; the subscription was 10/6, but this did not include medical attendance. He supported the motion. Other members also spoke, and after the President had read a few letters on the subject, he put the motion. The meeting decided against its adoption.

On July 31st Dr. Turner will move, at the Queensland Branch meeting (B.M.A.):—

> "That in the opinion of this Branch contracts for medical teatment should include disease whatever may be its cause, and that no patient should be denied treatment on the ground that his disease was caused by immorality."

And Sir David Hardie will move:—

1. That a Still-births Registration Act is much needed for Queensland.
2. That an Abortion Registration Act is also necessary, and made to apply to any Municipality that voluntarily adopts it.
3. That the Government be requested to introduce and support Bills for these purposes during the present session of Parliament.

—o—

Public Health.

DIPHTHERIA IN VICTORIA.

Dr. C. P. Dyring, the Medical Officer of Health for Coburg, has found diphtheria bacilli in the throats of 16 out of a total number of 394 children examined at the elementary school. This represents a frequency of 4 per cent. The school building is stated to be well designed, airy and properly ventilated. He recommended to the Coburg Council that steps should be taken to ascertain the frequency of diphtheria carriers in the other State schools.

Dr. Robertson, the Chairman of the Board of Health for the State of Victoria, has criticised the action of several of the municipalities who contend that it is part of the duty of the Board to make routine investigations in regard to the discovery of diphtheria carriers. The Board was prepared to provide the necessary sterile swabs, and to bear the expense of the bacteriological examination, but objected to the unnecessary outlay which would be entailed by sending medical men all over the State to trace the carriers. He was of opinion that the eradication of the disease was a local matter, which lay in the province of the municipality.

In the Mildura district, 65 cases of diphtheria have been notified since May 26th. Bacteriological examination of these cases has recently been undertaken, but diphtheria bacilli have not been found in the throats of any of the patients. It is, therefore, at present uncertain what the nature of this epidemic actually is. We understand that Dr. Jones, of the Board of Health, is at present investigating the matter.

The Brighton Council received on the 13th inst. a report from the Elsternwick State School notifying the occurrence of 18 cases of diphtheria among the children. All these cases had affected children in the older school building, which was in a very insanitary condition. Thorough disinfection of the school is to be carried out.

SMALL-POX IN SYDNEY.

The number of small-pox cases have been reported to the Department of Public Health, New South Wales, during the week ended the 12th July, 1914, were:—

Sydney	17	cases.
Country:—		
Aberdeen	1	„
Moree	2	„
Newcastle District	2	„
Scarborough	1	„
Total	23	cases.

And during the week ending July 19, 1914:—

Metropolitan District of Sydney	6	cases.
Country (Moree)	4	„
Total	10	cases.

INFECTIVE DISEASES IN QUEENSLAND.

The following notifications have been received by the Department of Public Health, Queensland, during the week ending July 11, 1914:—

Notifiable Diseases.	No. of Cases.
Typhoid Fever	5
Diphtheria	53
Varicella	5
Phthisis	7
Erysipelas	3
Scarlatina	5
Ankylostomiasis	2
Puerperal Fever	1
Total	81

INFECTIVE DISEASES IN WESTERN AUSTRALIA.

The notifications received by the Department of Public Health of Western Australia for the week ended July 4th, 1914, were:—

District.	Typ.	Diphth.	Scl'na.	Ph'sis	Erys'las.
Fremantle	....	1	....	....	....
Fremantle East	....	1	....	....	....
Leederville	1	....	....	....	1
Perth	....	....	....	1	1
Perth, North	....	....	....	1	....
Bayswater	1	....	....	....	....
Guildford	....	....	....	1	....
Midland Junction	....	....	....	1	....
Victoria Park	....	1	....	....	....
Kalgoorlie	1	1	....	....	1
Boulder	1	3	....	....	....
Coolgardie	....	1	....	....	....
Wandering	....	1	....	....	....
Beverley	1	1	....	....	....
Collie	....	3	....	....	....
Bullfinch	....	....	....	1	....
Bunbury	....	....	1	....	....
Bellevue	....	....	....	1	....
Belmont	....	....	....	1	....
Dumbleyung	....	....	....	1	....
North Beach	....	....	....	1	....

MEDICAL INSPECTION OF SCHOOL CHILDREN.

The report on the medical inspection and school hygiene issued by the Education Department of Victoria deals with the work carried out by the school medical officers for the year ended 30th June, 1913. The number of children examined was 12,439; 10,174 were in the elementary schools, 2,078 were in the high schools, and 187 were in training at the Teachers' Training College and Domestic Arts Hostel. Since inspection is biennial the number of children under medical supervision is over 20,000 out of a total of 175,000. In the elementary schools, one child out of every nine examined showed defective sight, and the same proportion, defective hearing. Post nasal growths and enlarged tonsils were present in one in every four children examined. Fifty per cent. of the children showed defects of teeth. Lung examination and chest measurements are carried out at the second examination and when the children leave school. This year a course on hygiene will be begun as one of the subjects for the diploma of education at the University. A special report is attached dealing with the treatment of ophthalmic and dental effects in school children. Emphasis is laid on the necessity of eye-testing being carried out by an oculist. The reasons for this are set out in full, and are very important. About 10 per cent. or more of the children require a special examination, and a definite number require exclusion for trachoma. The machinery for undertaking the work in connection with ophthalmic defects requires organization. The report on dental defects takes the form of recommendations in regard to the setting up of an experimental dental clinic. Special sections of the report are devoted to the training of teachers in hygiene, to teaching and living in the open air, to

school cleansing, to the growth of the Australian child, and kindred subjects. In the majority of these appendices, the material is of the nature of recommendation.

A number of tables are given, dealing with defects discovered at the examination, the action taken by parents after notification of defects, and the results of the anthropological investigations. A valuable report on the education of backward and defective children by Mr. Arthur J. Häuser concludes the report. He recommends, inter alia, that for feeble-minded children special schools in central positions be provided in cities, that special classes be established in provisional centres, that manual training should occupy the pupils up to half the school time, and that bookwork should be undertaken only by those who are capable of profiting therefrom.

Dr. Gertrude Helley, the Chief Medical Inspector of Schools in South Australia, has just issued her report. This report is incorporated in the annual report of the Minister of Education. During the nine months up to December, 1913, 4490 children were examined. She speaks in enthusiastic terms of the interest taken by the children in the examination. Of the total number examined, 20.11 per cent. had defects interfering with their educational progress, and in addition a large number of children had minor defects. 26.1 per cent. of the girls and 23.3 per cent. of the boys showed defective sight. In 5 per cent. of the children the hearing was defective. In 3.5 per cent. the deafness was considerable. Adenoid vegetations and enlarged tonsils were found in 46 per cent; in 11 per cent. these defects were sufficient to interfere with the breathing of the children. The teeth of the boys were found to be worse than those of the girls. In 68.3 per cent. two or more teeth were decayed, while in 13.9 per cent. the dental defect was sufficient to influence a general nutrition. 49.7 per cent. of the girls had two or more decayed teeth. Dr. Helley considers that a dental hospital is urgently needed, where the children could be sent for treatment. A large number of children were suffering from scoliosis or some other form of curvature of the spine. In regard to cleanliness she reports that 15.2 per cent. of the boys, and 11.47 per cent. of the girls were "fairly clean," and 5.2 per cent. of the boys and 4.17 per cent. of the girls were "bad." She makes some very direct remarks in regard to the lavatory accommodation in the schools. In many of the schools no bathroom is provided, and the "school towel is a disgrace, and should be done away with." She recommends that the mentally defective children in the city schools, who are incapable of learning in the ordinary class, should be educated in a special school, or in a special class. The report contains many other points of considerable interest.

INFECTIVE DISEASE IN QUEENSLAND.

The following report of infectious diseases for the State of Queensland during the week ended July 4, 1914, has been issued:—

Notifiable Diseases.	Number of Cases Reported.
Typhoid fever	13
Diphtheria	35
Varicella	8
Phthisis	7
Erysipelas	6
Cerebro-spinal meningitis	1
Scarlatina	1
Ankylostomiasis	2
Puerperal fever	0
Total	73 cases

L. E. MELLISH,
Secretary, Department of Public Health,
July 7th, 1914. Queensland.

REGULATIONS OF THE MIDWIVES ACT IN NEW ZEALAND.

The following regulations, under the Midwives Act, 1908, have been approved by his Excellency the Governor of New Zealand, in the place of the regulations dated April 17th, 1905;—

REGULATIONS.

Examination of Pupil Nurses.

1. The examination of pupil nurses shall be partly oral and practical and partly written, and the subjects of the examination shall be as follows:—

(a) The elementary anatomy of the female pelvis and generative organs.
(b) Pregnancy and its principal complications, including aborton.
(c) The symptoms, mechanism, course, and management of natural labour.
(d) The signs that a labour is abnormal.
(e) Hæmorrhage: its varieties, and the treatment of each.
(f) Antiseptics in midwifery, and the way to prepare and use them.
(g) The management of the puerperal patient, including the use of the clinical thermometer and of the catheter.
(h) The management (including the feeding) of infants, and the signs of the important diseases which many develop during the first ten days.
(i) The duties of a midwife and of a monthly nurse.
(j) Obstetric emergencies, and how the midwfe should deal with them until the arrival of a doctor.
(k) Puerperal fever: its nature, causes, and symptoms.
(l) The elements of house-sanitation. The disinfection of person, clothing, and appliance.

2. Any candidate who during the examination shows a want of acquaintance with the ordinary subjects of elementary education may be rejected on that ground alone.

3. The examination shall be held half-yearly at such times and places as are from time to time notified by the Regstrar.

4. Candidates for the examination must give notice to the Registrar at least three weeks before the date so notified.

5. No pupil nurse shall present herself for examination if she has during her period of training missed three or more of the lectures hereinafter provided for.

Conduct of State Maternity Hospitals.

6. (1.) Every State maternity hospital shall be under the charge of a Matron appointed under the said Act, who shall have full control of the institution, subject to the directions of the Minister.

(2.) No person shall be appointed as Matron of a State maternity hospital unless she is registered under the Nurses Registration Act, 1908, and also under the Midwives Act, 1908.

7. The Matron shall deliver lecture to the nurses, and shall, if necessary, teach and train the pupil nurses in general hospital duties as well as in the special duties of midwife an dmonthly nurse.

8. Every Matron shall keep a register of patients admitted, in the form supplied by the Registrar, and a cash-book for fees received. A copy of all entries made in these books during each month shall be sent to the Registrar within the first week of the next succeeding month.

9. Not more than twenty pupil nurses shall be entered on the roll of a State maternity hospital at one time, and of these not more than ten may be nurses registered under the Nurses Registration Act, 1908.

10. (1.) For each State maternity hospital the Governor shall appoint one or more registered medical practitioners, who shall be required to attend all abnormal cases of labour, and cases which require the administration of an anæsthetic; to prescribe for and attend any cases needing medical or surgical treatment; and to deliver a course of lectures (not less than twelve in each term of six months) to the pupil nurses attending the hospital.

(2.) Such practitioners shall, when practicable, take pupil nurses out to cases of labour.

(3.) The appointment of such medical practitioners may be terminated at any time by notice under the hand of the Minister.

Certificates.

11. No pupil nurse shall be entitled to a certificate under the said Act unless she has conducted not less than twenty cases of labour, and has also nursed twenty lying-in women druing the ten day following labour.

Fees.

12. The fees payable under the said Act shall be as follows:—

(a) Indoor patients: At the rate of one pound a week for the time the patient is in the hospital before labour, and at the rate of one pound ten shillings a week from the time of confinement. (For free patients, see regulation 14.)

(b) Outpatients: One pound; such fee to cover delivery of the patient, and daily visits for the subsequent ten days.

(c) Pupil nurses: If registered under the Nurses Registration Act, 1908, ten pounds for six months' training; in all other cases, twenty pounds for twelve months' training.

(d) Midwives, on registration:

(i.) If trained outside New Zealand and registered under paragraph (a) of section 4 of the said Act, ten shillings in the case of persons registered under the Nurses Registration Act, 1908, and one pound in all other such cases.

(ii.) If registered under paragraph (b) of section 4 of the said Act ,after training in New Zealand in any institution (other than a State maternity hospital), one pound.

(iii.) No fee for registration shall be payable by any person who has been trained as a pupil nurse in a State maternity hospital, and who has paid the fee prescribed by paragraph (c) hereof.

13. Pupil nurses undergoing a course of practical training in midwifery in any hospital or institution approved by the Registrar (other than a State maternity hospital) may, upon payment of a fee of £3 3s., attend the course of lectures delivered at a State maternity hospital. Notwithstanding anything in sub-paragraph (ii) of paragraph (d) of the last preceding regulation, no further fee shall be charged on the registration of a person to whom this regulation applies.

14. When an application for admission as a patient to a State maternity hospital it is alleged by any woman or by her husband that they are unable to pay the prescribed fees, the Matron shall forward a report of the circumstances of the case to the Minister, and on consideration of such report the Minister may either reduce such fees or remit them altogether, as he thinks fit.

Malpractices.

15. No midwife shall make use of any instrument to aid delivery, or adminster chloroform or any other anæsthetic, except in the presence of and under direction of a medical practitioner.

16. Any midwife who makes use of an instrument to aid delivery, or who administers chloroform or any other anæsthetic, except as aforesaid, or who procures or attempts to procure abortion by any means (chemical or mechanical), shall be deemd guilty of a malpractice.

Donations.

17. Any society or person making a donation of £50 or giving an annual subscription of £10 to a State maternity hospital shall have the right annually to nominate a patient at such hospital free of charge.

Annual Notices to be Given by Practising Midwives.

18 The notice to commences the practice of midwifery or to continue such practice, required to be given by section 9 of the said Act, shall be in the form set forth in the Schedule hereto.

19. (1.) If any registered midwife fails to give such notice for two years in succession, the Minister may order her name to be removed from the register.

(2.) Any midwife whose name has been removed from the register pursuant to the last preceding sub-clause may apply to the Registrar to have her name restored to the register, and on satisfying the Registrar that she is entitled to registration, her name shall be restored accordingly.

20. The last preceding regulation shall not apply to any midwife employed in the Government service o long as she contiues in that service, or to any midwife attached to the staff of any public hospital and not engaged in midwifery work, or to the Matron or staff nurses of any maternity hospital training school, or to the licensee of any private hospital in which midwifery cases are not received.

SCHEDULE.

Under the Midwives Act, 1908.

Notice of Intention to Practise Midwifery.

To the Registrar of Midwives, Wellington.

I, [Full name], a midwife registered under the Midwives Act, 1908 ,hereby give you notice of my intention to practise [or to continue the practice of] midwifery at ; and I hereby declare as follows:—

1. My place of abode is

2. I was first registered on the day of 19 , and have since practised as a midwife at

Dated at this day of 19 .

[Signature.]

I certify that I am acquanited with the above-named and that the said notice was signed in my presence.

.....

Medical Practitioner (Minister of Religion, or Justice of the Peace).

VENEREAL DISEASES.

REPORT OF THE BRITISH SCIENCE GUILD.

The sub-committee appointed to enquire into the frequency of venereal diseases in South Australia presented its report at a meeting of the executive committee of the British Science Guild (South Australian branch) on June 24. An interim report had previously been furnished. The report dealt with the frequency of these conditions throughout the Commonwealth, but in as much as but little information was obtainable from other States, the question of frequency has been confined to South Australia. The report continues as follows:—It seems well to review the reasons for this. It was certainly not undertaken by reason of any academic interest attaching to it. For there is none. It has a very definite practical object. This may be stated as follows:—Although the medical profession has for long been aware of the grave necessity of legal measures for the control and final eradication of venereal diseases, yet the public remains apathetic or ignorant, or directs attention to wrong aspects of the matter. Until the full importance of these diseases is realised in all its bearings, to the individual and to society, no useful endeavours for their eradication are to be anticipated. The melical man in the routine of his work is daily compelled to recognise the extraordinary gravity of these conditions as factors which tend to shorten the lives and diminish efficiency of individuals contracting them. These effects are the same in those innocently contracting the disease as in others. Aware, by education, of the frequency of such conditions in every country in the world, he is bound to realise the weight of this pernicious factor in the evolution of every race. Thus, in any practical scheme ensuing from the study of eugenics the problem of the eradication of venereal disease stands in the forefront. For it is probably of the first importance for race evolution, and its solution should not be beyond the powers of the twentieth century.

A Scientific Problem.

The problem of the eradication of venereal diseases is purely scientific. It is true that with these diseases are associated moral and social evils; and hence the earnest (non-medical) section of the body politic, understanding nothing of medical science, completely fails, for the most part, to comprehend the nature of the problem. Impressed with the moral and social evils of the matter, it attacks it from one or other of these standpoints. For these efforts we can only express admiration, respect, and sympathy. They will doubtless accomplish much in these directions,

especially by education of the public; but they can do little directly to eradicate venereal diseases. For the problem resolves itself into the total extermination of certain micro-organisms, animal and vegetable. This is the problem for the medical man, which can only be solved by the same methods as other public health problems, without respect to the associated social and moral questions. Hence the necessity for legislation on public health lines. Methods of diagnosis and treatment (Wassermann, Ehrlich, and many others) have been so far improved within recent years that care can probably be guaranteed in nearly all cases if undertaken early and thoroughly efficiently with regard to syphilis, and has for long been known concerning gonorrhea. But full co-operation and persistence in treatment on the part of the patient are essential. This, in the experience of nearly every medical man is, for more often than not, lacking, with the result that in many cases nothing approaching cure is effected. This, as concerns the individual, is his own fault, but these conditions are infectious, and the result of this failure of cure in the individual is that the diseases persist and continue to spread far and wide. This is the concern of others. For this reason it matters not how perfect methods of diagnosis and of treatment are becoming; while this state of affairs persists venereal diseases will persist, unless the infectious individual is controlled and prevented from infecting others either through ignorance or through wilful negligence. The public mind has grasped the necessity of notifying cases of such infectious conditions as scarlet fever, measles, diphtheria, typhoid fever, bubonic and pneumonic plague, phthisis. Epidemics of smallpox cause panic. The unfortunate leper has, from the time of the middle ages, at least, been isolated and treated in civilised countries little better than the criminal. This has at least had the result that leprosy is now, on the whole, a rare disease in Europe (exsept in Scandanavian countries). Yet leprosy is only mildly infectious. Certain, it is that none of the conditions referred to, even tuberculosis, has anything like the importance, as infectious, of the venereal conditions endemic in every country of the world.

Parasites can be Wiped Out.

In should further be clearly brought out that these conditions, since they are infectious by contagion alone, will entirey disappear when the last case is no longer infectious. The organisms are purely and simply parasitic (obligatory parasites), and probably (apart from experimental conditions)) parasitic for man alone. They can, in fact, be literally "wiped out." This does not apply to tuberculosis, and most of the other conditions quoted above; for, on the one hand, in most of them (except typhoid fever and diphtheria) the micro-organism is air-borne (either invariably or usually), and on the other it is not always parasitic—that is to say, it is capable of existence in Nature apart from the human or animal body (facultative parasite). Hence, even if the frequency of these diseases may be reduced to an absolute minimum, yet new cases may be expected, at least in instances where infection is air-borne. For this reason venereal infections afford a better prospect for total extermination than any of the others. To the medical man all these statements are platitudes. He is further aware that, however low the frequency in this State may be, the subject is one demanding attention and action. Since our enquiry was begun, the subject of venereal diseases was discussed by a special section of the seventeenth International Medical Congress, London, August, 1913. Very definite opinions were expressed as to the necessity of State measures for the control of these conditions, and as to what some of these should and should not be. (Notification.—"Nothing on the lines of the C.D. Act," etc.). At the present time in England a Royal Commission is enquiring into the subject. The Australasian Medical Congress in Sydney, 1911, passed resolutions, seven in number, for suppression of venereal diseases. These have now been put into force in Queensland. The great London hospital, Whitechapel, which deals with an area of East London of an estimated population o fone million, Gentile and Jew, has (by the munificence of the Grocer's Company) recently added a new department devoted to these diseases alone. These facts show the importance of the matter as viewed in other States, and they support our contention that it is now time to make a move for the total suppression of venereal diseases in South Australia. It is felt that the first step, if any action is to be urged upon the authorities, is to be urged upon the authorities, is to ascertain, if possible the frequency of these conditions in this State. This was the reason for collecting the information, such as it is, furnished by the sub-committee in the interim report. An attempt was made to obtain informaton from all possble sources throughout the State These are set out n the interim report. The reshlt was hnsaisfactory; for it is only in a few of them that records were obtainable. This defect of statistics is, however, by no means confined to South Australia. For evidence given before the Royal Commission shows that in England there is the same lack of exact figures of frequency, and for precisely similar reasons:—

1.—That statistics of frequency of nearly all ailment, except such as have been notified for some years, can only be obtained with the greatest difficulty; some, if obtainable, are quite untrustworthy; others cannot be obtained at all. This is because most cases of every ailment whatsoever, with the above exception, are never recorded; those that are, even in institutions, are frequently recorded in such a manner that the records signify nothing definite to any one but the ndvdual responsble for them; thus the accuracy of statistics is vitiated.

2.—The odium attaching to venereal diseases, and the confidential relations between patient and medical man, lead to the suppression of records of cases to a great extent. It is impossible to obtain frequent figures until all cases are notified and records of them kept. Nearly all the figures at present obtainable err on the side of under-estimation. But for the compilation of records, complete for the whole State, to be accurate, something like a decade would be required, after notification; and there is no system of notification. If we are to wait for all these years, great preventable injury will have been done to this young and growing State. We have, however, even at the present time, the following very definite information:—

1.—About 8 per cent. of admissions to Parkside Lunatic Asylum are caused directly or indirectly by syphilis.
2.—Post-mortem examinations made at the Adelaide Hospital in the past three years show evidence of syphilis in about 8 to 9 per cent.
3.—Figures from the dermatological department of the Adelaide Hospital give the percentage of 8.5 syphillitic.
4.—The gynæcological department of the Adelaide Hospital shows between 6½ and 7½ per cent, of cases due to gonorrhea, while from 1 and 2 per cent. of cases are syphilitic.
5.—The total general admissions to the Adelaide Hospital as inpatients show the figures 2 per cent. syphilitic and 2.2 per cent. gonorrheal.

Other figures are given in the interim report, but need not be quoted here. It may be said, however, that the figures of the Registrar-General's reports, 1.2 per cent., are quite untrustworthy, owing to the vagueness of terms employed in them. The figures are doubtless much too low. All these figures need interpretation, and must be considsidered in perspective with regard to the sources from which they come (e.g., special departments.. It will be seen, further, that they greatly lack completeness; but, such as they are, they indicate clearly the gravity of the matter (e.g., 8 per cent. of incanity due to syphilis.)

Preventive Measures.

We beg, therefore, to suggest that it would be well if our word as to this gravity of this matter, probably considererably greater than these figures indicate, could be taken for the fact, and that the regulations proposed by the Australasian Medical Congress, Sydney, 1911, should be at once enforced. (It must be stated again that these differ in principle from the C.D. Act, which does not meet the case, and was foredoomed to failure. Almost precisely the same measures were suggested and discussed at the Seventeenth International Medical Congress in London, 1913, and agreed upon. The main point of the discussion turned upon the question of notification. This was finally passed. It appears to us to be the crux of the whole problem. The fol-

lowing are the regulations suggested at the Australasian Medical Congress, Sydney, 1911:—

1.—Notification (confidential and by numbers) of every case of venereal disease to a central authority, officer of public health, or officer specially appointed.

2.—Compulsory treatment of all cases until no longer infectious and the medical attendant is satisfied of this. (By methods of sero-diagnosis and bacterial diagnosis, as the case may be.

3.—Arising out of this, increased and adequate accommodation, by special wards and out-patients' departments devoted to the treatment of these conditions—in general hospitals, rather than in special hospitals.

4.—That it be made illegal for any unqualified person to treat venereal diseases.

5.—That it be made a criminal offence knowingly to transmit venereal disease.

6.—Prisoners' Detention Act, as in New South Wales (with extension.)

7.—Notification of still-births.

References.—Members of the sub-committee will be glad to give references to any papers consulted:—:—

FRANK S. HONE, B.Sc., M.B., B.S.
C. TRENT, Ch. de CRESPIGNY, M.D., B.S.
HENRY SIMPSON NEWLAND, F.B., F.R.C.S.
HAROLD RISCHBIETH, M.A., M.D., F.R.C.S.

Vital Statistics.

BIRTHS AND DEATHS IN SOUTH AUSTRALIA.

The returns of births and deaths registered in South Australia for the month of June, 1914, include the following figures:—The birthrate was 2.63 per 1000, which is higher than that of any of the five preceding years; the deathrate was 8.3 per 10,000. Amongst the causes of death, epidemic diseases were responsible for 13 deaths; 36 infants under one year of age died of diseases peculiar to infants. There were 5 deaths from typhoid fever, 5 from diphtheria, 1 each from whooping cough, dysentery and erysipelas, 25 deaths from pulmonary tuberculosis, and 29 from cancer and malignant tumours. Heart disease accounted for 47 deaths, and puerperal septicæmia for 4. The returns for Adelaide revealed a birthrate of 2.09 per 1000, and a deathrate of 18.5 per 10,000. There were 7 deaths from epidemic diseases, of which diphtheria accounted for 4, typhoid fever, dysentery, and erysipelas for 1 each. Three deaths were caused by diseases peculiar to infants, 10 from pulmonary tuberculosis, 7 from acute articular rheumatism, and 10 from organic diseases of the heart.

The following Births and Deaths Returns were registered in the undermentioned Corporate Towns in the Quarter ended June 30th, 1914.

Corporate Towns-	Registered during Quarter.			The Deaths registered in the Quarter include Deaths from—							
	Bir's	Deaths. Total.	Deaths. Under 1 Year	Diphtheria, Croup	Whooping Cough.	Typhoid Fever.	Diarrhœa and Dysentry	Diseases R'sp'tory System.	Tuberculosis of Lungs.	Diseases Circul'try System.	
Adelaide	283	273	41	10	.....	7	19	25	25	28	
Hindmarsh	68	22	9	.....	.....	.....	5	2	.....	5	
Thebarton	99	25	9	.....	.....	.....	4	3	.....	3	
Port Adelaide	210	67	23	.....	.....	.....	10	7	2	11	
Glenelg	38	10	1	.....	.....	.....	.....	1	.....	.....	
Brighton	5	5	3	.....	.....	.....	2	.....	1	.....	
Unley	187	44	7	.....	.....	.....	2	1	3	9	
St. Peters	61	27	4	.....	.....	.....	2	1	.....	6	
Kensington and Norwood	104	32	12	.....	.....	1	5	.....	2	4	
Gawler	30	8	5	.....	.....	.....	2	.....	1	.....	
Kapunda	23	13	2	.....	.....	1	.....	.....	.....	2	
Burra	26	7	.....	.....	.....	.....	.....	1	.....	1	
Clare	22	2	.....	.....	.....	.....	.....	.....	.....	.....	
Jamestown	21	13	3	.....	2	.....	1	.....	.....	.....	
Port Augusta	13	4	3	.....	.....	.....	3	.....	.....	.....	
Port Pirie	103	44	15	.....	.....	10	11	2	2	.....	
Kadina	34	10	5	.....	1	.....	2	1	.....	2	
Moonta	14	3	2	.....	.....	.....	1	.....	.....	.....	
Wallaroo	44	10	3	2	.....	.....	1	2	1	.....	
Goolwa	7	3	.....	.....	.....	.....	.....	1	.....	.....	
Strathalbyn	10	1	.....	.....	.....	.....	.....	.....	.....	.....	
Mount Gambier	52	16	3	.....	.....	.....	2	1	1	2	
Petersburg	41	7	1	.....	.....	.....	.....	.....	1	3	

HEALTH OF THE METROPOLIS OF SYDNEY.

Report of the Medical Officer of Health for the month of June, 1914:—

The mortality return for June, as supplied by the Government Statistician, shows that 640 deaths occurred in the Metropolis, including 27 deaths of individuals previously resident outside the Metropolis, and death classified as taking place in the Islands and shipping in the Harbour.

Thus, calculating on an estimated population of 725,400, the annual death rate for the month works out at 10.58 per 1000 of the population.

Deducting the deaths of persons, non-residents of the Metropolis, in the mental hospitals at Leichhardt and Hunter's Hill (Callan Park and Gladesville), and adding the deaths of previous residents of the Metropolis at the Benevolent Asylums, Mental Hospitals, and Consumptive Sanatoria, situated outside the Metropolis, the number of deaths was 617, giving a corrected death rate of 10.26 per 1000.

Among children under 1 year of age, 97 deaths were recorded for the Metropolis. There were 1,690 births during the month. The infantile mortality rate for the month was therefore 57.4 per 1000 births, showing a decrease of 14.6 per 1000 on that of the previous month, and 12 per cent. below the average of the month of June for the previous five years.

The above morbidity rates show that the health of Sydney was exceptionally good for the month of June, and that the heavy rainfall had undoubtedly, combined with the other seasonal visitations, benefited the general public health as far as such can be gauged from vital statistics.

Infectious diseases were responsible for 34 deaths, of which one was due to influenza, six to typhoid fever, six to whooping cough, eighteen to diphtheria, and three to puerperal fever.

Diarrhœal diseases were credited with 19 deaths, in contrast to 64 for the previous month. Of the deaths from diarrhœal diseases, 15 were under 1 year of age, that is 31 less than for the previous month.

Phthisis caused 40 deaths; pneumonia, 56; cancer, 54; diseases of the heart and blood vessels, 81; Bright's disease, 49; accident or negligence, 24; senility, 30.

Compared with the average in June of the previous five years, there were increases in the number of deaths from pulmonary diseases, Bright's disease, cancer, and senility; with decreases in diseases of the heart, diarrhœal diseases and phthisis.

One hundred and seventy-six cases of scarlet fever, 214 of diphtheria, 49 of typhoid fever, and 9 of infantile paralysis were notified during the month of June.

These figures show a reduction by half on those for the previous month in the case of typhoid fever, and 64 fewer cases of diphtheria.

Twenty-four cases of pulmonary consumption were notified under the City Council's by-laws, and 21 premises were disinfected by the Council's trained staff after the death or removal of the patients.

J. S. PURDY,
Medical Officer of Health.

Reviews.

A sixth edition of Dr. Lloyd Tuckey's book on Treatment by Hypnotism and Suggestion (1) has recently been published and during the six years since the last was issued, steady progress has been made in the spread of professional interest in psychotherapy. Dr. Constance Long, of America, contributes an article on Freud's theory and treatment by psycho-analysis, the result of an attentive study of this subject, and a considerable experience in its practical application. The author has made many alterations and added a good deal of new matter drawn from his personal

(1) Treatment by Hypnotism and Suggestion, or Psycho-therapeutics. By C. Lloyd Tuckey, M.D. Sixth edition, revised and enlarged. London: 1913. Balliere Tindall, and Cox. Sydney: Bruck and Thomson. pp. 431, 8vo. Price, 10/6.

experience during the last 30 years. No doubt the practice of hypnotism in the past has been associated with a great deal of fraud and mischief, and it is refreshing to read the views and experience of one who is transparently honest in his convictions of the value of hypnotism as a method of treatment in all kinds of disease, organic as well as functional. We fear, however, that any impartial reader of the list of cases treated by the author can come to only one conclusion, and that is, that if all that is stated to have been effected by hypnotism be really true, then we should all dispense with every other method of treatment and become hypnotists. In such organic diseases as tic douloureux, tabes dorsalis, gouty sciatica, extreme anaemia, we fail to see how hypnotism can have the slightest effect on the pathological conditions present. On the other hand we can quite readily believe in its efficacy in curing functional diseases such as insomnia, neurasthenia, dysmenorrhœa, alcoholism. We are always brought face to face with the difficulty of understanding why the profession at large has refused to adopt this method of treatment if it be so efficacious as Dr. Tuckey would have us believe. It cannot be said to be due to ignorance, for hypnotism has had its advocates for many years past, and its virtues and its failings have been discussed at meetings of the British Medical Association on several occasions. We believe that the sense of danger attached to the practice of hypnotism has kept the profession aloof from it, and though Dr. Tuckey is emphatic that the dangers have been exaggerated, he yet admits that in unskilful hands it may be a source of great danger to the individual. We have no desire, however, to enter upon a controversy on the value or otherwise of hypnotism, but we have pleasure in calling our readers' attention to a book which will repay study, however much we may be disposed to disagree with the author's conclusions.

University Intelligence.

UNIVERSITY OF WESTERN AUSTRALIA.

At the meeting of the Convocation of the University of Western Australia, held on July 7th, Bishop Riley was re-elected warden for the year 1914-15.

Two statutes were approved of by Convocation; the first dealing with affiliated institutions was in the following terms:—

(1.) A college, school, or other educational institution in the State may apply to be recognised as an affiliated institution of the University. Such recognition shall only be given by the Senate after a report from the Professorial Board, upon evidence of efficiency, satisfactory to the Senate. Students of any such affiliated institution shall be permitted to attend at such institution a course of study at the University, in the stead of the whole or part of the first year's course of study at the University, in the Faculties of Arts, Science (including Agricultural Science), or Engineering; and after presentation of schedules of qualification certifying that they have attended the classes and laboratory instruction, and passed the class examinations prescribed by the Senate, provided always that the students have passed the matriculation examination of the University before entering on their qualifying course, shall be admitted to the first University examinations in those Faculties.

(2.) Any college, school, or institution desiring to take advantage of the foregoing ordinance must—(a) Give satisfactory evidence of its educational status and that it is established on a permanent and effective footing. (b) Submit, for the approval of the Senate, courses of study of such scope and standard as may be accepted by the Senate instead of the whole or part of the first year's courses in the Faculties of Arts, Science (including Agricultural Science), or Engineering or any part thereof.

(3.) The Senate shall in no case grant the privilege of this statute to any college, school, or institution for a period of more than five years, but such privilege may be renewed for a further period, after a report from the Professorial Board.

(4.) The Senate reserves the right of inspecting the libraries, laboratories, and the equipment and apparatus provided for practical work and of inquiring into the qualifications of the teachers appointed to conduct the qualifying courses.

Statute 15, dealing with the granting of and conferring of degrees, was adopted as follows:—

(1.) Candidates who have fulfilled all the conditions prescribed for any degree, diploma, or certificate may be granted that degree, diploma or certificate by the Senate.

(2.) Every degree or diploma gained by examination or otherwise shall be conferred by the Chancellor or a deputy appointed by him either at a meeting summoned for the purpose, or at a meeting of the Senate. The forms of words to be used by the Chancellor or his deputy shall be as follow:—"By authority of the Senate of the University of Western Australia, and in virtue of my office as Chancellor (or acting on behalf of the Chancellor) I now confer upon you A.B. the Degree of ———— in this University."

(3.) Recipients of degrees other than honorary degrees shall be presented for admission by the Dean of the Faculty to which the degree belongs.

(4.) In exceptional cases and by resolution of the Senate degrees may be conferred upon persons in absentia.

(5.) The Senate may confer honorary degrees upon approved persons.

(6.) Recipients of honorary degrees shall be presented by the Vice-Chancellor or a deputy appointed by him.

(7.) No person shall be admitted to any degree, ordinary, ad eundem gradum, or honorary, until he has signed the register of graduates.

(8.) The Chancellor may, on the recommendation of the Senate, revoke the degree or degrees, diplomas, certificates and distinctions and all privileges connected therewith of any graduate of the University who shall be convicted of felony or of any indictable misdemeanour, or whose name shall have been removed for misconduct by a properly constituted legal authority from any official register or roll of members of the profession to which he belongs, and may restore on cause being shown, any person whose degree, diploma, or certificate has been revoked, to the degree, diploma, or certificate he previously enjoyed, without further examination.

The following motion was proposed by Dr. R. H. M. Jull was carried, after an amendment, by the Rev. W. H. Steele, to delete the words "at least two," had been lost:—

That this Convocation affirms the principle that there should always be at least two women members on the Senate of the University of Western Australia.

Hospitals.

HOBART GENERAL HOSPITAL.

During the year ending June 30, 1914, 2,003 patients were treated in the Hobart General Hospital. The daily average of patients in the hospital was 14 more than in the preceding year; 140 patients died, 1,777 were discharged, and 86 remained in the hospital. Seventy-nine new cases were treated in the out-patient department. During the year £2.225 was collected as fees, and £823 had still to be collected. Messrs. C. J. Atkins, Percy Ash, and Dr. E. Brooks were appointed members of the Board of Management.

ALEXANDRA HOSPITAL, HOBART.

The Executive Committee of the Alexandra Hospital have expressed the opinion that they would assist in the training of mid-wives for the Bush Nursing scheme. During the month of June six adults and five infants had been admitted into the hospital; 14 infants had been born, 12 patients and 11 infants had been discharged.

Correspondence.

MEDICINE IN CHINA.

Sir,—I have read Dr. C. J. Stuckey's account of medical work among the Chinese with keen interest. His contribution to epidemiology alone should prompt some of us to use his data for the purpose of controlling our confused impressions on the cause and spread of certain diseases. Having held strong views on several matters of this sort for a long time I have examined the evidence presented in Dr. Stuckey's very interesting article, to see what support such views have. Let me illustrate what I mean.

In his summing up, Dr. Stuckey says: "The most marked features are the general prevalence of parasites, dysentery, typhus fever, chronic dyspepsia, and surgical tuberculosis and the rarity of enteric fever, rheumatic fever, septicæmia, and appendicitis."

Why should surgical tuberculosis be so much more frequent than phthisis? Tuberculosis would be prevalent in over-crowded old cities, devoid of modern sanitary arrangements; and tuberculosis of bones, joints, and glands would no doubt be very common. It is noticeably absent in Australian cities. We are told that the Chinese are more or less immune to septic diseases, consequently mixed infection in pulmonary phthisis would be comparatively rare in China. I am of opinion that secondary septic infection is the one factor that turns the scale in favour of the tubercular virus. The human subject is very resistant to uncomplicated tubercular infection, especially of the lung. Bones and joints are not resistant tissues, and have a poor blood supply, and therefore are apt to succumb, although they are not subject, at least in the earlier stages of the disease, to complication by mixed infection. The glands are defensive, and will not allow the b. tuberculosis to pass into the general circulation.

I am pleased to note, too, that Dr. Stuckey refers to the "bovine" controversy, because it confirms an opinion I have held for a long time, that if the same energy and money that is devoted to prevention of the spread of bovine forms of tuberculosis to human beings were directed towards the prevention of infection spreading from case to case, a vast deal more good would result. Until we have established the position that the disease can no longer spread from case to case, bovine tuberculosis is practically a negligible quantity.

Believing as I do that the secondary or mixed infection accompanying phthisis are such potent factors in determining the struggle, no form of vaccine treatment (e.g., tuberculin) will avail if the mixed infections are left out of account. The cure of consumption lies in the prevention or cure of the mixed infection. The human organism will prevail over T.B. with that accomplished.

Dr. Stuckey says that acute rheumatism and chorea are both rare in North China. As I firmly believe these two diseases have a common specific cause, I am not surprised. I cannot, however, on this account obtain any evidence from this source in support of my opinion that acute rheumatic fever (and chorea of course) is an infectious disease, whose infectivity is about on a par with tuberculosis, that is to say, prolonged association with victims to these disease is necessary for spread to another. It is without doubt a "family" disease, just as phthisis is. The incubation period is probably as long, which accounts for the fact that it has never occurred to the lay mind that the disease is "catching." I lay great stress on this point, because it is imperative that some steps should be taken to prevent invalidity resulting from acute rheumatism in this country, where this is very common. Inquiry always elicits the fact that a previous case has occurred in the family or among their progenitors. This last observation is usually interpreted as evidence of an hereditary taint, which is the same error as was made with tuberculosis.

It is significant that Dr. Stuckey notes that enlarged tonsils and adenoid hypertrophy is rare, in the face of the fact that acute rheumatism is rare. Does the rheumatic virus cause enlargement of tonsils first, and does this localised lesion represent the incubation phase of the disease? This is quite probable, but by no means certain. It is difficult to explain the fact that otorrhœa is common where rheumatism is rare, unless it occurs in the majority of cases as a complication of scarlatina, which he says is virulent and common, or of measles, which he does not mention. There is much food for thought in this observation, but space prevents me from enlarging further on this and many other points which may occur to me.

Appendicitis is a rare disease. Unhappy thought for the rising surgeons in China! May this be due, as Dr. Stuckey suggests, to the large consumption of vegetable foods to the exclusion of meat.

I hold also that there is added proof to the theory that "muscular rheumatism" and osteo-arthritis are the late results of perversion of digestive processes, particularly when a farinaceous diet is freely indulged in, and that these diseases are not of microbial origin.

The scanty evidence of scanty contamination of rheumatoid lesions with organisms is most probably only the terminal infection so commonly found associated with chronic affections. Arteriosclerosis, which is stated to be common, may be a variety of these food-perversion diseases, so protean as they are known to be. Chronic dyspepsia is "more or less universal;" and those diseases which come in its wake, and are referred to above, must also be common. Gastro-enteritis and dysentery are frequently met with, and infant mortality is high. In the first place, child life, or any life, is apparently not much appraised in China. Secondly, their mode of living, while it has procured immunity from enteric and septic diseases, continues to offer manifold opportunities for contamination of food, and diseases not immunising in nature are just as common as they are everywhere under like or even better conditions.

I have now ventilated in a very sketchy way some of my fondest beliefs, and trust that, to make some return to Dr. Stuckey for his address, so rich in subjects for debate, that some of my confreres will lift this subject to a higher level than I can with opinions on these clinical data so far-reaching in respect to communal health and happiness.

I am, yours, etc.,

A. C. F. HALFORD, M.D., Ch.B. (M.), M.D. (Q.)

Clayfield, July 10, 1914.

G.P. is informed that letters cannot be published in the Journal, unless accompanied by the name and address of the correspondent (not necessarily for publication).

Personal.

Dr. Charles F. Warren has returned from Europe, and has resumed practice as an Ear, Nose, and Throat Surgeon, in partnership with Dr. A. J. Brady, at Wyoming, 175 Macquarie Street, Sydney. Dr. Warren was for nine months assistant at Central London Ear, Nose, and Throat Hospital, and the Throat Department of St. Mary's Hospital, London. Then he was assistant to Killian and Halle, of Berlin, and Urbanitsch, of Vienna, for seven months.

Dr. A. C. F. Halford, of Brisbane, returned recently from a six months' sojourn in America. During his absence his term of office as member of the Brisbane Metropolitan Water and Sewerage Board expired, and in standing for re-election he was returned at the head of the poll, as at the first election in 1910.

The following members have been elected to the New South Wales Branch, B.M.A.:—

Dr. J. G. Lentaigne, Neutral Bay.
Dr. Norman Royle, Lewisham Hospital.
Dr. Robert J. Pritchard, Woollahra.
Dr. Lily Holt, Tea Gardens.

The following have been nominated for election:—

Dr. Wolfe S. Brown, Drummoyne.
Dr. John Allan, Narrandera, N.S.W.
Dr. C. S. Molesworth, Chatswood.
Dr. F. J. Jensen, Seymour, Victoria.

Dr. Jeffrey Wilmott Wilkinson, M.B., B.S. (Melb.), has been registered as a legally qualified medical practitioner for South Australia.

Dr. P. T. Thane, late of Yass, has commenced practice at Thanet, Wiamata Road, Roseville, N.S.W.

Dr. Guy Warren has resumed practice at The Albany, Macquarie Street, Sydney.

We regret to have to announce the death of Dr. G. H. Butler, of Hobart, from cerebral hæmorrhage, on July 16. Dr. Butler was apparently in good health within a short time of his death. We hope to publish an obituary notice in the next issue of the Journal.

Dr. F. E. Hutchinson, of Victoria, has sold his practice to Dr. R. Ebsworth, and is returning to England.

Dr. Going, of Hamilton, is at present on a visit to Auckland, N.Z. He is staying at the Royal Hotel.

Dr. Dunstone, of Hammond, S.A., has removed to Port Augusta, where he is to join Dr. Pellew in practice.

Dr. Helen Mayo has been nominated to fill the vacancy on the Council of the University, caused by the resignation of Professor Lowrie, M.A. The election will take place on July 22.

Military News.

FIRST MILITARY DISTRICT.

Captain Marks (Brisbane) has been appointed Commanding Sanitary Officer, 1st Military District.

Captain A. Graham Butler (Brisbane) has been appointed to command 33rd A.A.M.C.

Captain A. Horn (Toowoomba), O.C. 24th A.A.M.C., has been appointed Major.

Captain Gifford Croll (Brisbane), O.C. 2nd A.A.M.C. Field Ambulance, has been appointed Major.

Examination of Officers of the Citizen Forces.

The following are the results of the theoretical portion of the half-yearly examination held during week ended 27th February, 1914, for confirmation of provisional appointment and promotion of officers of the Citizen Forces, and officers of the Senior Cadets for substantive rank in the Citizen Forces:—

Rank, Name, and Corps. Army Medical Corps.	Rank for which Examined.
Major A. Horn	Lieutenant-Colonel
Major D. G. Croll	Lieutenant-Colonel
Captain J. F. G. Luther	Major
Captain A. H. Marks	Major
Captain O. Smithson	Major
Captain (p) A. M. McIntosh ..	Captain
Captain (p) G. A. C. Douglas ..	Captain
Captain S. Kay	Major

Medical Appointments Vacant

BROKEN HILL AND DISTRICT HOSPITAL.

WANTED, RESIDENT SURGEON, salary £100 p.a., or if applicant has already served as Resident to a large Hospital for a period of at least six months, £150 with board and lodging in the Institution. Travelling expenses one way after six months' service. Applications to be in by August 5th, with copies of credentials addressed to the Secretary.

Medical Appointments.

Dr. Alexander Goldstein has been appointed a member of the Licensing Court for the Broome Licensing District, W.A., J. C. Fenton having resigned.

Dr. W. P. Yates has been appointed Medical Officer of Health at Bullfinch, W.A.

Dr. Arthur R. Haynes has been appointed Medical Officer of Health for the Subiaco Health District, W.A.

Dr. E. N. Bateman has been appointed District Medical Officer and Public Vaccinator, Youanmi, W.A.

Dr. K. R. D. Shaw has been appointed District Medical Officer and Public Vaccinator, Menzies, also Visiting Medical Officer, Davyhurst, and Visiting Medical Officer, Kookynie, Western Australia.

Dr. C. Duguid, of Maylands, W.A., has been appointed Public Vaccinator.

Dr. Clive Eadie, eldest son of Dr. James Eadie, of Balaclava, Melbourne, has been appointed Resident Surgeon in the special department, eye, ear, nose, throat, and skin, of the Middlesex Hospital, London.

The following have been appointed to be certifying practitioners for the purposes of the Workmen's Compensation Act:—

Dr. C. E. Todd, of Adelaide; Dr. W. H. Harbison, of Wallaroo; Dr. O. Leitch, Port Pirie; and Dr. W. J. Gething, of Port Adelaide.

Diary for the Month.

July 28:—New South Wales Branch, B.M.A.: Committee Meetings.
July 28.—Eye and Ear Society (Melbourne).
July 30.—South Australian Branch, B.M.A.: Ordinary Meeting.
July 31.—New South Wales Branch, B.M.A.: Ordinary Meeting.
July 31.—Queensland Branch, B.M.A.: Special Meeting.
July 31.—Melbourne Hospital Clinical Society.
Aug. 4.—New South Wales Branch, B.M.A.: Council Meeting.
Aug. 7.—Queensland Branch, B.M.A.: Ordinary Meeting.
Aug. 8-12.—British Association Meeting, at Adelaide.
Aug. 13-19.—British Association Meeting, at Melbourne.
Aug. 14.—New South Wales Branch, B.M.A.: Clinical Evening.
Aug. 14.—South Australian Branch, B.M.A.: Council Meeting.
Aug. 18.—New South Wales Branch, B.M.A.: Council Meeting.
Aug. 20-26.—British Association Meeting, at Sydney.
Aug. 25.—New South Wales Branch, B.M.A.: Committee Meetings.
Aug. 27.—South Australian Branch, B.M.A.: Ordinary Meeting.
Aug. 28.—New South Wales Branch, B.M.A.: Ordinary Meeting.
Aug. 28-31.—British Association Meeting, at Brisbane.

Warning Notices.

Medical Practitioners are requested not to apply for any appointment referred to below without having first communicated with the Honorary Secretary for the Branch of this Association:—

Appointment.	Hon. Secty. of Branch.
Brisbane United Friendly Societies' Institute, Lodges, etc., of the Longreach, Central Queensland, and Warwick Friendly Societies, Darling Downs, Queensland.	Queensland Branch, B.M.A. Building, Adelaide Street, Brisbane.
Swan District Medical Officer.	Western Australian Branch B.M.A., 230 St. George's Terrace, Perth.
Contract Practice in Western Australia.	Western Australian Branch B.M.A., 230 St. George's Terrace, Perth.
Goulburn Friendly Societies' Association, at Goulburn, N.S.W. Lodges at Casino, N. S. Wales. The United Friendly Soceities' Association of Orange, N.S.W.	N. S. Wales Branch, B.M.A., 30-34 Elizabeth Street, Sydney.
The Friendly Societies' Medical Association Incorporated, Adelaide.	S.A. Branch, B.M.A., 3 North Terrace, Adelaide, S.A.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this Journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to the "Medical Journal of Australia" alone, unless the contrary be stated.

All communications should be addressed to "The Editor," "Medical Journal of Australia," B.M.A. Building, 30-34 Elizabeth Street, Sydney, New South Wales.